Lectures

ON THE

DIAGNOSIS AND TREATMENT

OF THE VARIOUS FORMS OF

PARALYTIC, CONVULSIVE, AND MENTAL AFFECTIONS,

CONSIDERED AS EFFECTS OF MORBID ALTERATIONS OF THE BLOOD, OR OF THE BRAIN OR OTHER ORGANS.

BEING A COMBINATION OF THE

Gulstonian Lectures, delivered at the Royal College of Physicians of London in February, 1861,

AND OF

Clinical Lectures delivered at the National Hospital for the Paralysed and Epileptic,

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LECTURE II.—PART I.

ON THE SYMPTOMS OF ORGANIC DISEASE OF THE BASE OF THE BRAIN.

Progress of diagnosis owing to anatomical discoveries, to vivisections, and to clinical observations—Importance of anatomical discoveries, illustrated by cases of alteration of the pons Varolii with three different seats of paralysis of the face—Share of vivisections in the progress of our knowledge of diagnosis of the seat of an alteration in the brain—Share of clinical observation—Diagnosis of disease of the medulla oblongata, the pons Varolii, and the crura cerebri—Paralysis of the third, fourth, fifth, sixth, seventh, eighth, and ninth pairs of nerves.

GENTLEMEN,—Before I come to the exposition of the symptoms and treatment of the various diseases of the brain, I wish to point out some general notions concerning the symptoms of the organic diseases of the base of the brain.

The progress of our knowledge of these symptoms has been extremely rapid during the last twenty years. The great discoveries we owe to Stilling and many other anatomists, two of whom—Mr. Lockhart Clarke and Schroeder Van der Kolk—deserve especially to be named. The discoveries made by experiments upon animals; the publication of many well-observed clinical facts; and, also, the teachings of morbid anatomy, have thrown a great deal of light on the symptoms of organic diseases of the base of the brain.

Much has been done by anatomy in showing that the cranial nerves decussate in the base of the brain. It is easy at once to understand the importance of this anatomical fact. Let us suppose, for instance, three cases of hemiplegia, with symptoms indicating that there is an organic affection in a part of the right half of the pons Varolii. In the three patients the left side of the body is paralysed; and while in one of them the face is paralysed on the right side, in another it is paralysed on both sides, and in the third it is paralysed on the left side. Anatomy explains perfectly well these apparent discrepancies.

In the first patient the alteration exists in the lower part of the pons, near the medulla oblongata; so that the facial nerve of the right side, before making its decussation, is alone altered, and, consequently, the face on the same side is paralysed.

In the second patient the alteration exists in the middle part of the right side of the pons, where are both the facial nerve of the right side and that of the left side, (on account of their decussation,) and, as a consequence of this anatomical disposition, both sides of the face are paralysed.

In the third patient the alteration is in the upper part of the pons, above the decussation of the facial nerves, so that the nerve of the left side is the only one injured, and, consequently, the paralysis is in the left side of the face. The following table shows at a glance what anatomy teaches as regards these three cases:—

Seat of Paralysis.	*Seat of Alteration.*
1. Trunk and limbs, *left side.* Face, *right side.*	1. *Right side:* Pons, below decussation of facial nerves.
2. Trunk and limbs, *left side.* Face, both *right* and *left sides.*	2. *Right side:* Pons, level of decussation of facial nerves.
3. Trunk and limbs, *left side.* Face, *left side.*	3. *Right side:* Pons, above decussation of facial nerves.

Anatomy teaches, and pathological cases confirm, as shown in this table, that according to the seat of an alteration in one lateral half of the pons Varolii, there is a paralysis of the facial nerve, either in the same side, or in the side opposite that of the alteration, or in both sides of the face, while in the three cases, the paralysis in the trunk and limbs is limited to the side opposite to that of the alteration.

I will show hereafter that the recent advances of anatomy have thrown a great deal of light of the same kind as in the preceding illustration as regards the symptoms of loss of function or of irritation of the other cranial nerves after their entrance in the base of the brain. Experiments upon living animals have also thrown much light on these symptoms. For instance, vivisections have shown that an injury to the trigeminal nerve inside the pons Varolii or medulla oblongata produces less alteration of the cornea than an injury to the trunk of the nerve at the level of the Gasserian ganglion, or to its ophthalmic branch. Vivisections have shown that a great many fibres of the medulla oblongata and the pons Varolii have other functions than those of conductors of volition or of sensitive impressions. Vivisections have led to many other important discoveries most useful as regards our knowledge of the symptoms of disease of the base of the brain.

I will not insist upon the usefulness of morbid anatomy and of clinical observation. I will simply say about them, that he who will carefully record all that relates to the various nerves of the senses and of the muscles and skin of the face, and also to the par vagum and the cervical sympathetic nerve, in cases of disease of the brain, and will make a careful post-mortem examination, will render a great service to practical as well as to scientific medicine. I may add that anyone who will take the trouble of comparing the teachings of anatomy and those of vivisections will be amply repaid for his trouble. The obscurity still existing as regards the diagnosis and the prognosis of disease of the brain will be removed only by the progress of these three means of knowledge, and by the comparison of their teachings.

The symptoms of disease in the base of the brain, as well as those of the other parts of the brain, are to be divided into two great groups: 1. Symptoms due to a loss of action; 2. Symptoms due to an irritation. I will examine now what are the symptoms of the first group.

1st. *Symptoms due to a loss of function of a part of the base of the brain.*—The various nervous centres which compose the base of the brain are conductors of voluntary-motor, sensitive, and vaso-motor or nutritive nervous influences, and they are also centres of reflex and emotional movements. They therefore present symptoms depending either on the loss of the function of the various conductors they contain, or symptoms due to an irritation, and consequently to an exaggerated or morbid action of these conductors. I will now speak only of the first of these essentially different symptoms.

Let us suppose an alteration limited to a lateral half of the base of the brain, beginning by that part which is nearest to the spinal cord—i. e., the medulla oblongata. By what symptoms can we know that the seat of an alteration is in the medulla oblongata, and not in the part of the spinal cord which is close by it? In the spinal cord, an alteration limited to a lateral half produces a paralysis of voluntary movements in the same side of the trunk and limbs, and anæsthesia in the opposite side, presenting, therefore, that singular kind of paralysis in which the loss of voluntary movements is in one lateral half of the body, while the loss of sensibility is in the other half. If the alteration is in the medulla oblongata, two distinct groups of symptoms may be observed, according to the seat of the alteration. If it is at the level of the decussation of the anterior pyramids, the voluntary motor fibres of both sides of the body being altered, although only a lateral half of the medulla is the seat of the injury, there is a paralysis of voluntary movements in both sides of the body, while there is anæsthesia onl

in the opposite side of the trunk and limbs.* If the alteration is above the decussation of the anterior pyramids, the paralysis of voluntary movements is in the opposite side of the body, together with the anæsthesia. So that when the alteration is *below* the decussation—i. e., in the spinal cord—the anæsthesia is in the opposite side of the body, and the paralysis of motion in the corresponding side; while, when it is *above* the decussation, both kinds of paralysis are in the opposite side. The differences will be better understood in the following table:—

1. *Alteration below the decussation of the anterior pyramids in a lateral half of the spinal cord:*—

Paralysis of voluntary movements	Corresponding half of trunk and limbs.
Anæsthesia	Opposite.

2. *Alteration at the level of the decussation of the anterior pyramids, in a lateral half of the medulla oblongata:*—

Paralysis of voluntary movements	In both halves of the body.
Anæsthesia	Only in opposite half.

3. *Alteration above the decussation of the anterior pyramids, in a lateral half of the medulla oblongata:*—

Paralysis of voluntary movements	In the opposite half of the body.
Anæsthesia	Ditto ditto.

So that in the three cases the anæsthesia is in the opposite side of the trunk and limbs, while the paralysis of voluntary movements is either in the side of the alteration, in the opposite side, or in both sides. Vivisections and clinical observation have led me to ascertain the truth of this statement.

Another mode of judging whether the seat of an alteration is in the medulla oblongata, or in the upper part of the spinal cord, consists in noticing the state of sensibility of the face and neck on the side altered. For instance, let us suppose an alteration of the right lateral half of the spinal cord, just below the medulla oblongata, at the level of the entrance of the roots of the first pair of spinal nerves. There is in that case, as I have already said, loss of voluntary movements in the limbs and trunk in the same side, and loss of sensibility in the opposite side; but there is also a more or less marked anæsthesia in all the parts of the neck receiving nerve-fibres from the first cervical nerve on the side of the alteration. It is easy to understand why this is so: the fibres of the posterior roots of that nerve in the side of the alteration are injured before the decussation with those of the other side, in their passage towards the other side, through the part altered.

What is said here of the sensitive roots of the first cervical pair of nerves, may be said also of all the sensitive nerves along the cerebro-spinal axis. We may judge pretty well of the place of an alteration in the length of a lateral half of that nervous axis by the existence of anæsthesia in a part of the body (face, tongue, neck, trunk, or limbs) on the side of the alteration, while there is anæsthesia in the whole of the opposite side, below the level of the upper limit of the alteration. In this way we can detect easily if the injury is in the pons Varolii, in the medulla oblongata, or in the spinal cord, and at what level, in either of these organs. The local anæsthesia in the face, the tongue, the throat, the larynx, the neck, and the various parts of the trunk and limbs in one side, while there is anæsthesia in the whole of the other side of the body in the parts below the seat of the alteration, show that the seat of this organic change is either at the level of the trigeminal, the pneumogastric, the glosso-pharyngeal, the first spinal, or any other nerve in the same side with the local anæsthesia.

It would be easy to diagnose an alteration in a lateral half of the medulla oblongata by comparing it with an alteration in the same half of the pons. In the lower part of the medulla oblongata an alteration would cause the above-mentioned paralysis in both sides of the body owing to the decussation of the anterior pyramids, while in the upper part of the medulla and in the pons only the opposite side would be paralysed. In the lower part of the medulla an alteration would cause no facial paralysis, while it would certainly cause it in the upper part of that organ, or in the pons. I need not say also that symptoms of paralysis of the auditory, the pneumogastric, the glosso-pharyngeal, the hypoglossus, and the spinal accessory nerves, would show themselves in cases of an alteration of a lateral half of the medulla oblongata at a much greater degree than when the pons Varolii is the part altered. Breathing and deglutition especially are more difficult, and death is nearer at hand in the first than in the second case.

The seat of an alteration in the various parts of a lateral half of the pons Varolii may be detected, as I have said above, by the seat of the facial paralysis. I may add that what I said of the facial nerve may be repeated as regards the fifth pair of nerves, or, at least, its sensitive part. When the alteration is in the lower part of a lateral half of the pons, there is anæsthesia as well as paralysis of movement in the corresponding side of the face. When the alteration is in the middle of the same half of that organ, there is anæsthesia as well as paralysis of the facial nerve in both sides of the face; while it is only in the opposite side of the face that anæsthesia and paralysis exist when the alteration is in the upper part of a lateral half of the pons.

The decussation of the sixth pair of nerves taking place also in the pons Varolii, there is also for the paralysis of the rectus externus what I have said for the anæsthesia and the paralysis of the face. Admitting the alteration to be in the right half of the pons Varolii, the right or the left eye alone, or both eyes together, may be drawn inside by the non-resisted action of the internal rectus, according to the seat of the alteration, *before*, *upon*, or *after* the decussation of the abductor nerves.

Other paralytic symptoms (shown by the state of breathing, of deglutition, &c.) are more marked when the alteration is in the lower part of the pons Varolii than when it is in the upper part of that organ.

When an alteration exists in the upper part of the pons Varolii, extending to the valve of Vieussens, there is also a paralysis of another muscle of the eye which may serve to indicate the seat of the alteration. It is that interesting palsy of the great oblique muscle, owing to which the globe of the eye loses the power of remaining apparently motionless while the head moves to and fro laterally towards one shoulder or the other.

As we progress forward along the middle line of the base of the brain, we find in front of the pons Varolii the crura cerebri, organs which do not furnish such decisive symptoms as the parts placed behind it. When the alteration is located in one of the crura cerebri at the place where the third pair of nerves originates, there is a paralysis of the various muscles of the globe of the eye, and also of the iris and of the internal muscles of the eye, including the muscle discovered by Charles Rouget.* This paralysis is more evident in the eye on the side of the alteration, and it is more or less mixed up with clonic or tonic convulsions in the other eye. When the alteration is above the decussation of the third pair of nerves, there is a paralysis of the above-named muscles in the eye on the side opposite to that of the alteration. It is especially by the state of the parts receiving the ramifications of the third pair of nerves, combined with the paralysis of both sensibility and motion in the face as well as in the trunk and limbs limited to the opposite side of the body, that we can judge that the alteration is in one of the crura cerebri. I need not add that frequently, then, one of the optic tracts behind the chiasma, on account of its being in the neighbourhood of the crus cerebri, is also altered, and that the interesting kind of alteration of sight called *hemiopia*† is then observed.

* For details on this subject, see my Course of Lectures on the Central Nervous System, 1860, Lect. iii., vii., and xii.

* The discovery of that muscle is erroneously attributed to H. Müller.

† I have now a patient attacked with *hemiopia* at the National Hospital for the Paralysed and Epileptic. I have ascertained on him the truth of the celebrated hypothesis of Wollaston. When an object is just opposite one of his eyes (the other eye being covered), he sees but a lateral half of it. When the object is brought to one side, he sees no part of it at all when the image exists on the paralysed half of the retina. If from that extreme situation the object is gradually brought to the other extreme, so that at last the whole of the image is upon the healthy lateral half of the retina, he gradually sees at first a very small part, then one-fourth, one-third, one-half, two-thirds, three-quarters, and at last the whole of the object. It is so with each of his eyes. Those who know the hypothesis of Wollaston will find a confirmation of it in this interesting fact.

CENSUS OF SCOTLAND, 1861.—The following is a summary of a parliamentary return just issued of the number of houses and population of cities and parliamentary burghs in 1861, with the number of separate families, and of children between five and fifteen attending school. Number of separate families, 679,025; houses inhabited, 393,289; vacant, 17,167; building, 2692. Population, males, 1,446,982; females, 1,614,269—total, 3,061,251. Of children at school between five and fifteen, there are 456,699. Number of rooms with windows, 1,694,982. A table appended to the return shows that the total number of emigrants from the United Kingdom, from the 1st of April, 1851, to 8th of April, 1861, was 2,249,358, of which 640,210 were English, 183,627 Scotch, 1,230,986 Irish, and 194,582 foreigners. The total number of emigrants in 1851 was 385,966, and in 1860 it was 128,496 only.

A Course of Lectures
ON
PAIN,
AND THE
THERAPEUTIC INFLUENCE OF MECHANICAL AND PHYSIOLOGICAL REST
IN
ACCIDENTS & SURGICAL DISEASES.

Delivered in the Theatre of the Royal College of Surgeons,

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LECTURE II.—PART II. (*Concluded.*)

Nerves to Fingers.

THE other two large nerves of the upper extremity are, the median and ulnar. I must not trouble you with much of the details of their distribution, except to point out the great precision of their nervous supply. These nerves, together, supply all the flexors of the wrist-joint, fingers, and thumb, all the pronators of the radio-ulnar joints, and all the joints that those muscles move. The separate distribution of the median and the ulnar nerve I need not refer to, beyond reminding you of the fact. But when we come to look at this distribution closely, it is a little remarkable. We have here two

FIGS. 10 & 11.

These two drawings, from nature, are intended to display the muscles and nerves of the middle finger.

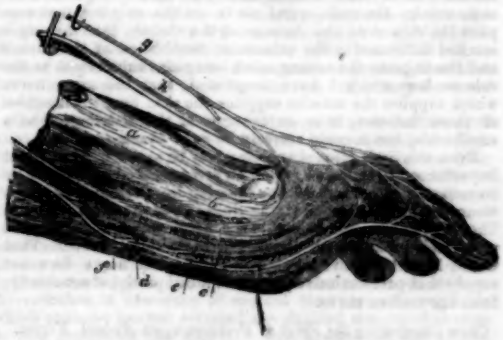
Fig. 10: *a*, Lumbricalis with its tendon joining with the tendon of the long extensor, and thence proceeding to the last phalanx of the finger. *b*, Interosseous muscle and tendon inserted into tendon of long extensor.

Fig 11: *a* and *b*, the same as in Fig. 10. *c*, Digital branch of median nerve passing to the palmar surface of the finger, and sending a large and constant filament to join (*d*) a portion of the radio-spiral nerve, and then proceeding along the dorsal aspect to the extremity of the finger.

middle fingers, drawn from nature: one with its muscles and tendons shown, and the other with the distribution of the nerves upon it. We see the tendons of the extensor running along the back of the finger, but scarcely further than the base of the second phalanx. Then by the side of the finger, and joined to the tendon of the extensors, we may see two small muscles,—the lumbricalis and the interosseous. Their tendons pass on to the end of the finger, towards the dorsal aspect. Thus it might appear, at first sight, as if the flexor (median) nerve came on to the ground of an extensor distribution; but it is not really so, because the interossei and the lumbricales, which form a part of the flexor apparatus, are supplied by the median and ulnar nerves. We have here the tendons of these small muscles (supplied by flexor nerves) passing along the dorsum of the finger, in accordance with the distribution of the flexor nerves. So we observe a distinct portion of the extensor nerve running along the dorsum of the finger, as far as the tendons of the extensors proceed distinctly, and then uniting with the branch of the median nerve. So that here, in the median nerve, so accurately is this systematic arrangement carried out, that these little muscles — the interosseous and the lumbricalis — command, as it were, an associated cutaneous nervous distribution. Hence this median nerve, whilst passing along underneath a portion of the finger, sends a large branch across the side of the second articulation, between the first and second bone of the finger, and distributes itself along the dorsum of the finger. Here we have an instance of the same nerve supplying the muscles, and supplying the skin also over the insertion of the same muscles.

Nerves to Toes.

FIG. 12.



Middle toe, muscles and nerves.

a, Metatarsal bone. *b*, Interosseous muscle. *c*, Transversus pedis muscle. *d*, Lumbricalis. *e*, Flexor brevis digitorum. *f*, Plantar nerve, (analogous to digital nerve of hand), but not supplying a distinct branch to the dorsum of the toe. *g*, Extensor nerve proceeding to the end of the toe. *h*, Extensor tendons.

Now contrast that state with the middle toe. You will observe the extensor tendons and nerves running along the dorsum of the toe. But here is a marked difference, apparently, in the distribution of the plantar nerve. Instead of there being a distinct dorsal branch from a plantar nerve, as you observe from the median or ulnar nerves in the hand, this plantar nerve (the analogue to the branch of the median nerve) does not pass towards the dorsum of the toe, but confines itself to its under surface; and it seems, upon careful examination, that the interossei and lumbricales do not extend themselves so completely along the dorsum of the toe as the corresponding muscles do upon the dorsum of the finger. So here we have, on a small scale, the same thing expressed with equal precision, —that the same nerve that supplies the muscles, supplies also the skin over the insertion of those muscles.

Nerves to Thumb.

In this drawing of the human thumb you see a part of the distribution of the radio-spiral nerve to which I have already alluded as supplying all the extensors of the elbow, wrist, fingers, and thumb without exception, and none others except the radio-ulnar supinators.

FIG. 13.*

This sketch represents the nervous supply to the dorsum of the thumb, there being no palmar branch from the median nerve upon the dorsum of the thumb.

a b c, The tendons of the three extensor muscles of the thumb.
d, Portion of radio-spiral nerve.

* The distribution of nerves to the dorsal aspect of the great toe corresponds with that of the thumb.

Now the thumb stands in this peculiar position, that instead of having the tendons of its muscles blended together and merged into each other as in the fingers, making a sort of common ground for the distribution of two sets of nerves, you see the separate and distinct insertions of the tendons of the first, second, and third extensors of the thumb and the radio-spiral (extensor) nerve going exclusively to it on the dorsal aspect of the thumb. There is no branch of the median nerve proceeding to the dorsum of the thumb, but there is a branch of it going to the dorsum of the finger. Why this difference? It is obvious that the whole of the muscular association on the dorsum of the thumb is confined to these three extensor tendons, all of which are supplied exclusively by the radio-spiral or extensor nerve; and, in accordance with that arrangement, the same trunk—the radio-spiral nerve—is the only one that supplies the skin over the dorsum of the thumb, thus making a marked difference in the cutaneous distribution of the thumb and the fingers; the arrangement being also subservient to the rule or law which I have mentioned, that the same nerve which supplies the muscles supplies the skin over the insertion of those muscles; it is an example of the distribution on a small scale, but it could scarcely be more exact.

Even this little piece of anatomy may be occasionally of direct importance. I remember seeing an error checked completely by its recognition. A patient was suffering from tetanus, having a wound upon the dorsum of the finger over the third phalanx. The surgeon proposed to divide the nerve which supplies that part, and intended to divide the radio-spiral nerve. That would have been an error. The radio-spiral nerve does not supply that part exclusively; it is supplied partly, if not chiefly, from the median nerve.

Cases illustrating the Effect of Pressure upon Spinal Nerves.

I will now refer for a moment to illustrations of the effect of mechanical pressure or irritation upon the median nerve. We know that a fracture near the base of the radius, with displacement, is sometimes followed by a large amount of callus, that callus being always in proportion to the disturbance of the parts or severity of the fracture, and perhaps is occasionally due to the want of proper management. The swelling and displacement together lead to pressure upon the median nerve, and that pressure is competent to produce destruction of the tissue at the peripheral distribution of that nerve.

Some years ago, a sailor came to Guy's Hospital, under the care of the late Mr. Key, having had a bad fracture of the lower part of the radius. There was not any surgeon on board the ship; the fracture was not properly set, and it pressed severely upon the median nerve above the wrist. The man had ulceration of the skin upon the thumb, the forefinger, and the middle finger. The hand was flexed purposely, and put in such a position that all the tension was taken off the median nerve, and the ulceration got perfectly well; but as soon as his hand was allowed to be freely used and extended again, and the pressure of the callus permitted to exert its influence upon the median nerve, the ulceration reappeared on the thumb, forefinger, and middle finger. He could not pursue his occupation as a sailor, but it was not thought right to submit him to any remedial operation, which might place his hand in danger, so he preferred remaining as he was. He was allowed to depart from the hospital, no doubt subject to a recurrence of the ulceration to which I have alluded. This is a good illustration of pressure and irritation upon a nerve producing deterioration of structure.

Gangrene of the Third and Fourth Fingers from Pressure upon the Ulnar Nerve.

I have placed this model before you for the purpose of fixing upon it a fact somewhat like the preceding. The model shows gangrene of the little and of part of the third finger of the left hand. I will give you in a few words the history connected with the preparation. Elizabeth B——, aged forty-seven, came under my care at Guy's Hospital in February, 1853. She was of healthy aspect and regular habits. About a year ago she felt numbness in the extremities of the third and fourth fingers of the left hand, with pain in the same parts, especially increased during the night. The fingers gradually became enfeebled and lessened in size. In a short time the ends of the above-named fingers began to appear discoloured, the numbness and pain increasing. She had no particular treatment for this, and, as mortification was impending, the surgeon advised her to come to the hospital. On admission, the third and fourth fingers were found to be gangrenous, the extent of which is shown in this drawing. A healthy line of demarcation between the living and dead structures was then forming. No pulse was perceptible in the radial artery, and only a very slight one in the ulnar artery. On examining the case with care to ascertain the cause of all this, I found upon the first rib an exostosis pressing upon the subclavian artery so as to obliterate it, or prevent any blood from passing through it. The exostosis was pressing upon a nerve also, which turned out to be the ulnar nerve. I pressed my finger upon the nerve overlying the exostosis, and immediately the patient expressed additional pain in the little finger and adjoining fingers. The exostosis pressing upon the subclavian artery affected every part of the upper extremity alike, as far as the supply of blood was concerned; but the added circumstance was, that it pressed upon the ulnar nerve, and so produced an additional impression upon the two fingers supplied exclusively by the ulnar nerve. The interference with the nervous power or nervous influence, or the irritation upon the nerve, whatever it may be, led to structural deterioration and finally to gangrene of

FIG. 14.

the ends of those fingers. The case is quite analogous to that of the sailor who received a fracture of the radius, with a large amount of callus pressing upon the median nerve, and leading to ulceration of the forefinger, middle finger, and thumb: for the line of demarcation between ulceration and gangrene is but small; the one is molecular death—the other is local death, but on a larger scale.

REPORT OF A CASE OF STONE IN THE BLADDER;

LITHOTRITY; SUBSEQUENT LITHOTOMY BY THE MEDIAN OPERATION; REMOVAL OF NINETY-SEVEN SMALL CALCULI.

BY BARNARD HOLT, ESQ., F.R.C.S.,
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J. G——, a gentleman aged sixty-eight, consulted me in September, 1860, for stone in the bladder. He had previously to my seeing him been subjected to many lithotriptic operations, and a considerable quantity of stone had been removed; but he was never entirely relieved from the symptoms which necessitated the operation. At the time of my seeing him these were much aggravated; the urine was passed every hour; it contained a large quantity of blood, and deposited about half its quantity in thick tenacious mucus. He complained of constant pain at the extremity of the penis, aggravated after

micturition. Upon examination, a small stone was detected lying loose in the bladder; and as the urethra was capacious and all other circumstances favourable, the lithotrite was introduced, and the stone broken up. The operation was at intervals twice repeated, the fragments escaped without much trouble, and the irritability of his bladder to a considerable extent subsided; the urine became more clear, and deposited less mucus. He, however, continued to suffer pain at the extremity of the penis, not confined to the period after micturition, but being more or less always present. The bladder was again examined in the most careful manner, without however detecting any foreign body. He therefore returned to the country, greatly, but not entirely, relieved.

In January, 1861, he again consulted me, the symptoms having been aggravated during the previous month. A small stone was detected and broken up, one operation sufficing to get rid of all that could be detected at that time in the bladder. An after examination, however, led to the conclusion that a fragment was possibly embedded in the immediate neighbourhood of the prostate, inasmuch as when the sound was passed backwards and forwards a slight grating was elicited, but nothing further, and the introduction of the lithotrite failed to enclose any portion of calculus. The pain continued in a mitigated form, and the urine, although improved, was slightly tinged with blood.

In the following May, his surgeon wrote me that his symptoms were again aggravated, and I recommended his removal to London. He had been several times examined in the country without any stone being detected.

Upon examination, a small stone was found situated at the same part of the bladder as before, evidently impacted, and yielding a distinct sound, accompanied by a squeaking noise when the sound was passed backwards and forwards. The bladder was fully injected, and his position altered, in the hope of dislodging it, but every movement failed to do so. A lithotrite was introduced and opened in the situation of the calculus, without however being enabled to enclose it.

A few days were now permitted to elapse, and he was directed to walk about, to ride in a jolting vehicle, and to frequently alter his position, so as if possible to dislodge the stone; but upon a second examination it was detected in precisely the same situation, and gave to the sound the same squeaking noise as before.

The inutility of persisting in any further attempt at lithotrity being apparent, the median operation was decided upon, as affording every facility for removal, and less chance of injury to an already highly congested prostate. Having been placed under the influence of chloroform, the operation was performed in the usual manner. The finger having entered the bladder, a small stone was detected on the patient's right side, embedded in a pouch immediately behind the prostate. This was with little difficulty removed, and subsequently, by the introduction of the scoop, twenty-seven small calculi were extracted, the pouch being at this time apparently emptied.

In two hours after being placed in bed he complained of great distension of the bladder, and, a catheter being introduced, about a pint of bloody urine was with great relief removed; and as blood continued to ooze from the wound, pressure was for some hours kept applied by the finger of an assistant. The oozing gradually ceased, and in the morning he was comfortable; the bladder, although irritable, was entirely under his control, and no urine escaped, excepting when he had a desire to micturate.

On the second day from the operation he passed several small calculi, which increased his pain, and gave rise to slight bleeding; and during the first fortnight he passed altogether seventy small calculi. The passage of these gave rise to considerable irritation, which, however, gradually subsided. The urine was freed from blood, the bladder became more tolerant of its contents, and in a month from the operation the wound had healed, and he was so far improved in health as to return to the country. I have since had a letter from his surgeon, who describes him as free from pain, and altogether in a most satisfactory state.

Savile-row, August, 1861.

ON DIABETES.

BY W. G. CARTER, M.R.C.P. Lond., Clifton.

A CASE presenting the ordinary characteristics of this still obscure disease—namely, increased secretion of urine, of high specific gravity (1040), giving the usual reaction of copper with the solution of Barreswil, as well as the conferva by the torula test, with great thirst, loss of flesh, strength, &c.—having lately fallen under my care, in which the treatment was not exactly that usually followed, but which I found successful, induces me to offer a few remarks on this interesting as well as important subject.

We all know that the pathology of this disease is still involved in considerable obscurity; for although anatomy and chemistry have done much in explaining the structural changes as well as the nature of the secretion, they have not yet satisfactorily explained the original seat of the malady, and consequently have left so much room for speculative reasoning that I cannot refrain from giving my opinion. I will not trouble the reader with the three different forms of the disease—insipidus, mellitus, and chylosus,—but will presume that each more or less assumes the characters of the other, is more or less dependent for its origin on the same cause, and would be benefited by the same kind of treatment. But I shall allude to some of the different theories of the past and present time that have found advocates, in order that my view may be more clearly understood.

Galen supposed a high degree of appetancy or irritation to exist in the substance of the kidneys, in consequence of which it attracts the matter of the urine with great vehemence from the vena cava; and an equal degree of atony and relaxation in its orifices or pores, so that the same matter flows off unchanged as soon as it reaches them, which cannot be construed to mean that the diseased secretion was the result of a diseased condition of the kidneys, for the matter passed off unchanged as soon as it reached them; and this same explanation seems to have satisfied some of the oldest and most celebrated writers. Nevertheless, it is worthy of remark that the only organ in which anatomy has yet revealed any decided structural change in this malady is the kidney.* Mr. Cruikshank also affirms that "the arteries of the kidneys are upon these occasions preternaturally enlarged, particularly those which secrete the urine." And Dr. Baillie tells us, in the thirteenth chapter of his "Morbid Anatomy," page 276, that "in both kidneys the superficial veins were much fuller of blood than usual, forming upon their surface a most beautiful network of vessels; the whole substance of the kidneys was much more vascular than usual, approaching a good deal in appearance what takes place in inflammation." A more modern suggestion is that the disease depends on a morbid action of the stomach or some of the chylifaciant viscera, which therefore constitute its seat. Dr. Mead ascribed it to the liver, but Dr. Baillie, in the same case from which I have just quoted, says, "The liver I examined with care, because it has been stated or thought by some to be the chief source of disease in diabetic patients, but it was perfectly sound." Dr. Rollo fixed the seat of the disease in the stomach, but Dr. Baillie further observes in the same case already alluded to, "The stomach and intestines were also examined with attention, but no appearances occurred in them which are not very common." More recently, M. Andral remarks that the liver is large in diabetes; and M. Bernard has endeavoured to prove that sugar is secreted by the liver, and which secretion is much increased by the irritation of a portion of the walls of the fourth ventricle; but, in opposition to this sugar-forming function of the liver, Dr. Pavy, in the fourth volume of the third series of the "Guy's Hospital Reports," endeavours to prove that there is no evidence of sugar existing in the healthy body during life, but rather that it is a post-mortem transformation instead of an ante-mortem functional operation. Another hypothesis, which was first started by Dr. Willis and supported by Sydenham, regarded diabetes as an immediate affection of the blood: "The mass of the blood," says he, "becomes, so to speak, melted down, and is, too, copiously dissolved into a state of serosity, which is sufficiently manifest from the prodigious increase of the quantity of urine, which cannot arise from any other cause than this solution and waste of blood." Another ingenious theory to get rid of the necessity for the existence of sugar in the blood (and which cannot be found) before it reaches the kidney, supposing the primary seat of the disease to be either the stomach or some of the chylifaciant viscera, was that proposed by Mr. C. Darwin, in an essay presented to the Æsculapian Society of Edinburgh, in which he endeavours to account for the disease of saccharine urine by a retrograde action of the lymphatics of the kidneys. To these may be added another—that of Dr. Marsh in the third volume of the "Dublin Hospital Reports," who ascribes diabetes to a morbid condition of the skin, and interruption of its functions.

Such, then, are some of the principal theories which have

* See Magendie's Journal, vol. iv., p. 362.

been propounded from time to time to explain the cause of the existence of saccharine urine, known by the term Diabetes; and no doubt cases have arisen, and will arise, which would rather justify one than the other; but for myself, with all due deference to the distinguished authorities from whose works I have endeavoured to obtain precise information on this disease, I am inclined to the physiological theory inaugurated by M. Bernard, and to ascribe the primary cause of the disease to a deficiency of nervous power from some morbid impression at or about the origin of the pneumogastric nerves. For what are the most common complications and secondary disorders of this complaint? Tubercular phthisis, dyspepsia from increased irritability of the stomach, anasarca, and apoplexy; to which may be added, according to M. Bernard, the increased glucogenic function of the liver by an injury to the medulla in the region of the fourth ventricle. And that it is a disease of the nervous centres, rather than of any secernent or excernent organ, the analogy of it to others which we know to be so, as well as the nature of the malady itself, afford striking if not positive evidence of the correctness of my assumption. The celebrated Dr. Wollaston referred the production and distinction of all the secretions to that change in the quality or intensity of the nervous power transmitted to it; and Dr. Van der Kolk refers all the spasmodic or convulsive movements to the ganglionic cells of the medulla oblongata, which, as reflex ganglia, possess the peculiar property, that, when once brought into an excited condition, they may more or less suddenly discharge themselves, and communicate their influence to the different nervous filaments, just as we see to be the case with electric batteries or in the phenomenon of an electric fish. Moreover, the treatment admitted on all sides to have been most efficacious offers to my mind a still further negative evidence of the disease being nervous rather than either humoral or chemical in its character. Dr. Latham frequently prescribed phosphorus with success, and we know what a powerful aphrodisiac that is when there is a deficiency of nervous power. Cullen was so satisfied with this doctrine that we find diabetes ranged in his class Neuroses, and order Spasmi, immediately before hysteria and hydrophobia. Acting under these impressions, I prescribed, as a nervine tonic, a pill containing the following ingredients: sulphate of iron, extract of nux vomica, compound extract of colocynth, and hyoscyamus—to be taken night and morning; with a mixture of phosphate of soda and infusion of gentian, twice a day; avoiding as much as possible all vegetables, and recommending a diet of a highly azotised nature. Under this treatment the urine lost its high specific gravity; the thirst became much less; and in a few weeks not the slightest reaction could be obtained by the solution of Barreswil, or any other process with which I am acquainted; and the patient recovered his usual health and spirits.

Belle-vue, Clifton, Aug. 1861.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

KING'S COLLEGE HOSPITAL.

INDUCTION OF PREMATURE LABOUR; SUCCESSFUL RESULT.

(Under the care of Dr. ARTHUR FARRE.)

THE following case of induction of premature labour, for which we are indebted to Mr. John Barr Brown, the resident physician-accoucheur, has lately occurred at this hospital in the practice of Dr. Arthur Farre. The result was attended with complete success.

J. B——, a mulatto, aged thirty-eight, of very diminutive stature, applied here, during the month of June, for the purpose of having labour prematurely induced. Her previous history runs thus:—She has been married eight years. In 1854, her first labour was terminated at the full time by craniotomy, performed by Dr. Farre. In 1856, labour was brought on, at this hospital, by means of the injection of hot and cold water, the woman being then fully seven months advanced in pregnancy; the child lived only a few hours. In July, 1860, being then about thirty-two weeks gone, she again applied at the hospital, and labour was induced a second time by means of the douche. The operation was commenced on the 28th of July, at four P.M. Uterine pains occurred slowly and irregularly until eleven P.M. on the 29th, when the membranes were forcibly ruptured, which greatly increased the force and frequency of the pains. The child was born at a quarter past eleven on the 30th, and lived about sixteen hours, during which time it swallowed some milk from a bottle. The weight, when dead, was 3 lb. 2 oz.; it measured in length sixteen inches. The mother had no milk in her breasts. She left the hospital perfectly well on the 12th of August.

In June, 1861, she applied for the third time. Dr. Farre saw her on the 26th. She had then, by her own calculation, finished the thirty-third week of pregnancy. The point of the finger could be easily passed within the lips of the os uteri. Dr. Farre commenced the operation, at three P.M. on the 26th, by introducing an elastic catheter (No. 10 size) for about three inches within the external os uteri. He then swept it round, so as to separate the membranes from the walls of the uterus. This was easily accomplished, except where the head was found to be lying—viz., over the symphysis pubis, a little to the left side. The woman had some slight pains in the back after the operation, but these soon subsided. Uterine pains commenced at six P.M. on the 27th, but were very slight and at long intervals. The membranes ruptured spontaneously at two A.M. on the 28th. The os uteri was now a little larger than a sixpence, soft, cool, and moist. The pains continued slowly and irregularly till five P.M. on the 29th, when they became more effective. At nine P.M. the os was dilated to the size of a half-crown; the presentation was easily made out. The child was born at two A.M. on the 30th, the head presenting in the first position. The umbilical cord, which was looped round the neck of the child, was pulsating strongly. The placenta came away easily about ten minutes after the birth of the child. The child, a female, seemed well formed, and cried lustily. Its head was well covered with hair; the nails were perfect; the pupils of the eyes quite regular; no membrana pupillaris existed; it weighed the next day 3 lb. 4 oz., and measured in length eighteen inches.

From this time, both mother and child progressed most favourably, the latter being fed on milk-and-water from a bottle, as the mother had no milk in her breasts. They left the hospital on July 13th, both quite well.

This last method of inducing premature labour—viz., by separating the membranes from the uterus by a catheter—is the one specially advocated by Dr. Farre. In the two previous labours the douche was employed, in consequence of the occlusion of the os and the difficulty of passing a catheter.

ST. BARTHOLOMEW'S HOSPITAL.

SLOWNESS OF THE PULSE, WITHOUT ANY WELL-MARKED DISEASE TO ACCOUNT FOR IT.

(Under the care of Dr. FARRE.)

EXTREME depression, apoplexy, some organic affections of the heart, and the exhaustion preceding final dissolution, are known to produce slowness of the pulse. By the term *slowness* is meant the diminution of the heart's beat to 40 per minute, or even much lower, say to 30 or 25 beats per minute. Ordinarily the cause of the slow pulse may be made out. Thus Dr. Watson states in his "Lectures on the Practice of Physic," vol. i.: "The slowest pulse I ever felt was that of a man sixty-eight years old, who was for some time a patient of mine, with diseased heart and dropsy. His pulse was often no more than 25 in the minute. He died suddenly in his chair, and I was very desirous of examining his body, but his widow would not allow it." The same writer refers to a case in the 17th volume of "Duncan's Medical Commentaries," in which the pulse was as slow as 9 beats in the minute.

We have recently watched a case of some interest under Dr. Farre's care, in which the chief peculiarity was slowness of the pulse. The patient, Wm. C——, a painter by trade, is fifty-eight years of age, and was admitted on the 2nd May. Nearly

six weeks before admission he was seized with giddiness, accompanied by pain and a sinking sensation in the stomach; he had shortness of breath, and could not walk a distance without stopping. For these he consulted the parochial surgeon, who told him of his slow pulse. Shortly before his admission he had a fainting fit. Whilst in the hospital the pulse was as low as 26 per minute when sitting or lying down, but increased to 30 or 34 when standing. On the 2nd June the pulse was 22 per minute; his general health was otherwise good. He remained in the hospital altogether about six weeks, and complained almost solely of debility at the commencement, which gradually disappeared under the influence of a regulated diet and mild tonic remedies. His pulse, though slow, was always regular; there was nothing abnormal about the heart in any way, and his general intelligence was good, although the mind did not appear to be active.

There is then no very decided cause for the slow pulse, unless the symptoms complained of some weeks before admission be interpreted as pointing to some insidious disease of the brain. Although a painter by trade, he has not suffered from the poisonous influences of his trade.

ENLARGEMENT OF A MASS OF LYMPHATIC GLANDS IN THE AXILLA; SUCCESSFUL REMOVAL.

(Under the care of Mr. SKEY.)

A young, healthy-looking female was recently admitted into this hospital with a prominent swelling in the right axilla, of between four and five years' duration, and attributed by her to an effort made to lift a heavy weight. Mr. Skey believed that the enlargement was due to constitutional causes, and not to violence. He had no doubt of the nature of the disease when the patient was admitted four months ago—namely, that it was a mass of enlarged absorbent glands. Both local and general measures were tried to promote absorption, but they proved ineffectual; he therefore advised removal. The tumours had grown, and there were increasing difficulties in the movements of the arm. He tried a seton, but it proved of no avail. The patient was accordingly brought into the operating-theatre on the 12th of July, and chloroform administered. An incision was then made over the prominent part of the swelling, and on reaching the cellular investment of the largest tumour, it was cut across, and the growth readily removed with the fingers and hand. By chiefly using the hand, and simply dividing their cellular investments, a considerable number of these enlarged glands were readily enucleated. Mr. Skey considered that he had taken away fully nine-tenths of all those affected, which varied in size from that of a marble to that of a kidney. Comparatively little blood was lost; the wound was filled with lint to allow of its healing up by suppuration, and the patient was taken to her bed.

In some remarks afterwards made, Mr. Skey observed, that if the enlargement had depended upon cancer, or other disease requiring careful dissection, it would have been a dangerous and complicated operation. Each gland was involved in a sac of cellular tissue, and therefore readily came away.

The patient, we learn, is going on most favourably, and is likely to make a good recovery.

METROPOLITAN FREE HOSPITAL AND CITY DISPENSARY.

PARAPLEGIA OCCURRING IN YOUNG CHILDREN, INDUCED BY EXPOSURE TO WET AND COLD.

(Under the care of Dr. WM. ABBOTTS SMITH.)

In three cases of this affection which occurred at the above hospital, the disease was apparently produced by prolonged exposure to cold, the depressing effects of which were heightened by combination with moisture. The ages of the patients were respectively five, six, and ten years. As the cause, symptoms, treatment, and result were almost identical in all the cases, it will be sufficient to refer at length to one case only, for which we will avail ourselves of Dr. Smith's notes.

"E. T——, aged ten years, was placed under my care, at the City Dispensary, upon the 22nd of January, 1861. The child was carried in his mother's arms, as he was totally unable to walk. The lower extremities presented a wasted, shrunken appearance, thus offering a striking contrast to the trunk and upper extremities, which were plump and well developed. Upon inquiry into the case, I learned that the patient enjoyed excellent health until about six weeks previously, and that he had never suffered from any severe illness. Shortly before Christmas, the boy's father, who was then living at a distance of about twelve miles in the country, removed to London, with a view to obtaining permanent employment; and as his scanty means did not permit of his travelling otherwise than on foot, he, with his wife and three children, walked up to town. The weather was of a most unfavourable character, and the boy who came subsequently under my treatment was obliged to walk all the way through the snow and sleet, as his parents were fully burdened with various packages and the two younger children, who were carried in turns by the father, and who escaped any bad effects from the exposure beyond slight bronchial disorder. The patient complained of a sense of numbness and lassitude towards the end of the journey, and was seized, a few hours afterwards, with violent shivering, which was followed by an attack of convulsions. On regaining sensibility, he was very giddy, and vomited excessively. He was kept in bed for ten days, at the end of which period he appeared sufficiently recovered to admit of his getting up again. It was then noticed for the first time that he was unable to set his feet firmly to the ground, and that he could not stand or walk without assistance. This condition was attributed by his friends to weakness only, but as it gradually became more marked, and incontinence of urine, with occasional involuntary discharge of fæces, came on, they eventually had recourse to medical advice.

"Jan. 22nd.—The sensory and motor functions are entirely wanting in the lower extremities; no deviation from a healthy condition is observable in other parts of the body. There are no symptoms of cerebral disorder; but upon percussion of the spine in its whole length, a considerable amount of tenderness was detected by firm pressure at the upper part of the lumbar region; no perceptible difference could be noticed, however, upon ocular inspection. The patient was directed to have a small blister applied immediately over the seat of the tenderness; to take, every four hours, five minims each of the tincture of cantharides and of the muriated tincture of iron, in six drachms of the infusion of quassia; and, as the action of the bowels was irregular, a powder, consisting of rhubarb and jalap, with a few grains of ginger to obviate griping; a stimulating liniment (containing half an ounce each of tincture of cantharides and oil of turpentine, and two ounces of camphor liniment) to be rubbed several times daily into the paralysed limbs. To have beef-tea and other nourishment, and a small quantity of port wine.

"29th.—The tenderness about the spine is not of so marked a character; a slight degree of sensation has returned, and the patient said yesterday that the embrocation 'pricked' him; there is no alteration in the motor functions; the bowels act regularly, and the incontinence of urine has disappeared. To apply a fresh blister to the spine, and to continue the medicine every six hours, and the liniment as before, the tincture of cantharides being omitted.

"Feb. 5th.—The sensation is now partially restored, and the motor power is so much improved, that, with a little assistance, the boy can walk a few yards, dragging his right leg after him in an awkward manner.

"15th.—The patient is rapidly getting better. He was ordered to have a tepid hip-bath night and morning, friction with the compound soap liniment being occasionally resorted to; to omit the cantharides from the mixture, and to increase the quantity of the tincture of the sesquichloride of iron to ten minims.

"26th.—The boy can now stand alone, but is still unable to walk without help. Cold affusion was directed to be substituted for the tepid bathing; the mixture to be discontinued, and a drachm of the syrup of the iodide of iron to be given thrice daily in a little water.

"March 12th.—Convalescence is now satisfactorily established. From this date a continuous improvement took place, and when last seen, about the end of April, he was as healthy and vigorous as most boys at his age."

Lengthened comment upon this case is unnecessary. The circumstances connected with the boy's falling ill, coupled with the negative fact that the two younger children, who were to a certain extent protected from the depressing influence of the cold and wet, did not suffer in a similar manner, point clearly to the cause of the affection. It ought perhaps to be mentioned that in the other cases referred to, Dr. Smith employed strychnia in suitable doses. Instead, however, of finding the results so satisfactory as he expected from analogous cases which have been recorded, he was compelled to discontinue this remedial agent in consequence of the ill-effects which were produced.

LONDON HOSPITAL.

ENLARGEMENT OF THE GLANDS IN THE AXILLA; PARTIAL DIMINUTION BY THE USE OF IODINE.

(Under the care of Mr. CURLING.)

A CASE somewhat similar to that under Mr. Skey's care lately occurred in Mr. Curling's hospital practice. In the left axilla of a man, aged thirty-three, was a mass of enlarged glands the size of the two fists, and consisted mainly of an agglomeration of single glands, varying in size, the largest as big as walnuts. Some of the cervical glands of the same side were also enlarged. There was no evidence of any inflammation; they possessed an indurated feel, and had been growing but eight months; whereas in Mr. Skey's patient the axillary glands had been slowly augmenting for nearly five years in a much younger patient. There was, moreover, in this man but very little, if any, pain.

These characters mainly agree with those of simple chronic strumous enlargement and induration of the lymphatic glands, although sometimes supervening upon inflammatory action, and such was the diagnosis of Mr. Curling and his colleagues, who examined the patient. What favoured this also was the circumstance of the patient being thin, and recently the subject of hæmoptysis and cough. A brother had been lost by phthisis.

The treatment consisted in the use of iodine, which had the effect of producing a positive diminution in the size of the axillary glands up to the period of the man's discharge from the hospital. It is very rare, however, that complete absorption is produced, even under most favourable circumstances; and it is probable that this man may ultimately become a patient for the purpose of undergoing an operation for the removal of the glands.

ROYAL FREE HOSPITAL.

WOUND OF THE PALMAR ARCHES; RECURRENT HÆMORRHAGE; LIGATURE OF RADIAL AND ULNAR ARTERIES; CURE.

(Under the care of Mr. ALEX. MARSDEN.)

THE variety of opinion which prevails amongst surgeons on the treatment of wounds of the palmar arch and of the arteries in the vicinity of the wrist-joint, is very well shown in a clinical lecture upon the subject published by Mr. Butcher, of Dublin, in 1852, and to which we would refer the reader. Compression alone of the arteries above the wound will sometimes, but not always, prove successful. It was so for a time in the following case (for the notes of which we are indebted to Mr. John D. Hill, house-surgeon to the hospital). Eventually, however, it became necessary to ligature both the radial and ulnar arteries:—

Lucy M——, aged sixteen years, admitted May 18th, 1860. A fortnight previously she was cutting some slices of bread, when the knife slipped and penetrated the palm of the left hand. Bleeding ensued to an alarming extent. A surgeon was called in, and he succeeded in arresting the hæmorrhage by the application of three compresses: one to each artery (radial and ulnar), and the third to the wound itself. Four days afterwards the wound became exceedingly painful, and it was necessary to remove the pressure, as it was intolerable. Slight oozing followed; but this was overcome by readjusting the compresses upon the vessels above—namely, the radial and ulnar. This pressure, however, caused so much pain that in the course of a few hours the surgeon was compelled to remove it altogether. The bleeding returned, and she was brought to the hospital.

On admission, she was very faint and blanched, her clothes being perfectly saturated with blood. The wound was an inch in length, and oblique in direction, over the situation of both palmar arches, extending from the middle of the metacarpal bone of the ring finger to the base of the metacarpal bone of the middle finger. The wound was suppurating, and the palm of the hand swollen and tender. Compression upon the radial and ulnar arteries singly had no effect upon the wounded vessels, but by compressing both arteries together the hæmorrhage was immediately controlled. As this could not be borne, a compress was applied to the brachial artery, and the patient placed in bed, with the hand and arm elevated to a vertical position, which had the combined effect of favouring the subsidence of the inflammatory process, and retarding the tendency to hæmorrhage. The wound was treated upon ordinary principles, and by the fifth day it began to heal. Tenderness of the arm necessitated the entire removal of the tourniquet six days afterwards, although it had been gradually relaxed from day to day. The wound by this time had nearly closed. Early on the following morning (May 31st), the hæmorrhage recurred; the house-surgeon (Mr. Hill) was called up, and found blood oozing through the granulations of the nearly-closed wound, the hand being much swollen from extravasation in the subcutaneous areolar tissue. Pressure upon both vessels arrested the bleeding at once; but pressure upon either artery alone had no effect. Mr. Hill ligatured both vessels at the wrist without delay.

The case progressed without a bad symptom; the wound healed five days afterwards; the ligatures came away on the ninth day (June 8th); the incisions healed by the eleventh day; and the patient was discharged upon the thirteenth quite well, with free use of the hand, and with no disposition to the recurrence of hæmorrhage.

ST. MARY'S HOSPITAL.

THE TREATMENT OF FLAT ULCERS OF THE RECTUM.

(Under the care of Mr. COULSON.)

ULCERS and fissures of the rectum are amongst the most painful of the minor affections with which surgery is concerned. Where, however, any difficulty exists in such cases, it usually arises in the diagnosis rather than in the treatment. Commonly, when the seat of fissure is discovered, the division of the fibres of the sphincter by the knife offers a ready means of cure. In cases of flat ulcer, however, the same result may be obtained by milder means, as in a case treated this year by Mr. Coulson at St. Mary's Hospital. The patient was a man aged twenty-six years. He had been the subject of piles for some years, which he attributed to an early habit of taking strong purgative medicine. Three weeks before admission he had felt a violent throbbing pain in and after action of the bowels; this was followed by the discharge of about an ounce of blood and continued tenesmus. These symptoms were renewed at each action of the bowels, until admission, the pain being severe, and lasting some hours. On examination, a somewhat deep and irregular ulcer was found by Mr. Coulson to exist in the mucous membrane within the sphincter. It was ordered that the bowels should be regulated and maintained in a condition of laxity by determinate doses of castor oil, that careful precautions for cleanliness should be observed, and that an ointment should be applied composed of a drachm of the nitric oxide of mercury to an ounce of lard. Under this simple treatment the patient made a rapid recovery, and was discharged, cured, at the end of a fortnight.

ROYAL SOCIETY.

SIR HENRY HOLLAND, BART., V.P., IN THE CHAIR.

ON THE ELIMINATION OF UREA AND URINARY WATER IN RELATION TO PERIOD OF THE DAY, SEASON, FOOD, LABOUR, HEALTH, &c.

BY EDWARD SMITH, M.D., F.R.S.

THIS paper contained the results of the author's daily researches from January, 1860, to March, 1861, and comprehended about 1300 analyses for urea. The investigations were of three classes: 1st, those showing the hourly and daily changes in the system throughout the year with ordinary food, and including 336 days of actual research; 2nd, others showing the influence of certain kinds of food; and 3rd, experiments on treadwheel labour and the discipline of prisons. The two former were made upon the author, and the last upon four prisoners during one month. The method of analysis for urea was that devised by Liebig. The paper was very voluminous, but the following are the results of the principal subjects of inquiry.

The average elimination of urea and urinary water was almost identical with the average obtained from all the experiments hitherto recorded, and showed in a striking manner the

advantage of carrying such inquiries through all the seasons of the year. The numbers were 519 grains of urea and 53 fluid ounces of urine, and the proportion of urea to body-weight was 2·75 grains per pound. The extremes were very great—viz., 298 and 748 grains of urea, and 23 and 92 fluid ounces of urine. The daily variations in the amount of urine were most striking, so that large and small quantities on various occasions proceeded alternately for some days; or the quantity progressed in waves of increase or decrease; or there was a progressive increase or decrease, all continuing many days as shown in the following instances:—

Alternation	...	57, 37, 62, 44, 60, and 46 fluid ounces.
Waves	... ...	73, 50, 41, 41, 57, 52, 54, 63 fluid ounces. 60, 43, 36, 49, 61 fluid ounces. 59, 76, 77, 56, 59 fluid ounces.
Increase	... ...	34, 38, 60, 62, 74 fluid ounces.
Decrease	... ...	68, 49, 49, 40, 42, 37, 26 fluid ounces.

These variations were due to the influence of temperature and atmospheric pressure, modified by the controlling action of the statics of the body, whereby there is a constant tendency to maintain a uniform bulk of the body, and therefore to counteract the temporary influence of any disturbing agent. Thus sudden increase must be followed by great decrease within a very few days—as 92 ounces were succeeded on the next day by 26 ounces of urine, and *vice versâ*. External agencies daily and hourly tend to disturb the uniform action of the body, and the statical powers of the body as constantly tend to restore uniformity; and hence, with much diversity, there is uniformity established on every long average. The excretion of urea and urinary water was increased in the hot season when a long period was taken; as when the year is divided into two parts, from May to October, and from November to April. The quantities of urea and urinary water at these periods were—

Summer half-year...temp. 55°; urea 570 gr.; urine 55·7 oz.
Winter half-year....temp. 44°; urea 480 gr.; urine 51·9 oz.

Sudden heat lessened the emission of urine, and thereby of urea; and sudden cold increased the emission: but the balance was restored in a few days. The increase of urea connected with heat usually occurred on the *following day*. Increased atmospheric pressure increased the elimination of urea on the *same day*. Both agents act directly, and not inversely; and when acting together they reinforce each other, but when opposed they counteract each other and destroy the uniformity of the results. The proportion of urea to each degree of temperature was precisely the same at the two periods of the year; namely, in the summer half-year 10·36 grains, and in the winter half-year 10·9 grains, to each degree.

The period of production is not that of elimination of urea, and hence the results are often confused. The elimination is influenced by causes acting quickly and suddenly; whilst production can only be determined by taking long averages. With increase of urine from whatever cause in heal·h, there will be increase of urea. The ingestion of water has the same relation to the egestion of urea, that the inspiration of air has to the expiration of carbonic acid; and ingestion of water acts by causing an increased elimination of urine. The absence of a due distinction between elimination and production of urea, and the want of averages sufficiently long to obtain the latter result apart from the former, are the chief causes of the difference in the statements made by various observers in reference to the action of certain agents.

In reference to period of the day, the author found by experiments made at every hour and at every quarter of an hour for limited periods, as well as by the ordinary ones made at various hours in every day, that the largest hourly excretion occurs in the morning to about twelve or one o'clock. There is then a rapid subsidence from before the early dinner until after the tea meal, when there is another considerable increase, continuing from about six to nine P.M., and afterwards the quantity rapidly falls to the night rate of emission. The lowest rate of emission both of urea and urinary water occurs in the night and until the breakfast, and the next is found in the middle hours of the day in the interval between the morning and the evening maxima. The largest hourly emission observed at the short intervals of a quarter of an hour was 54 grains of urea and 21 ounces of urine; but when observed at the longer period of one hour, the quantities were about 35 grains and 11 ounces. During the night the average rate was 16 grains of urea and 1 ounce of urine per hour. In all the experiments food was taken at nine A.M., two, six, and nine P.M., and the average quantity of fluid taken was 56 ounces, and of solids 37 ounces daily.

The smallest amount of urea in each ounce of urine was found in the morning time, and the greatest during the night. There was a small diminution at the period of the second maximum emission of urea in the evening, but with that exception the quantity of urea per ounce increased from about one or two P.M., until it reached the maximum in the night. It was the reverse of the quantity of urine emitted per hour.

The largest emission of urea occurred on the Sunday, with rest and increased food, and there was a daily diminution as the week advanced, ending with the Friday, which is the author's hospital day, and a day on which less food is therefore taken, and more exertion made. The greatest weight of the body occurred on the Sunday, and from Saturday to Monday morning there was an average increase of 2 lbs. The weight lessened daily during the week, with considerable and regular bodily exertion, but varied as the exertion and as circumstances temporarily increased or decreased the emission of urine. A loss of 2 lbs. in weight in a day of unusual labour sometimes occurred, and extreme variations during the week of 3 lbs. or 4 lbs. were common. The weight was taken on retiring, on rising, and after emission of urine.

Extra and unusual food, as at public dinners and evening parties, caused an increased emission of urea, which continued from one to four days, and varied from 50 to 200 grains per day. Stomach derangements and headache were usually attended by lessened excretion of urea on the days of their occurrence, followed by an increase on the day when relief was obtained.

In treadwhee labour, in which between 400 and 500 tons were lifted through one foot daily, and an amount of exertion made which was equal to walking thirty miles per day, the increase in the elimination of urea was only, on the average, 19 grains daily on treadwheel days over that of days of light labour, and 36 grains over that formed on Sundays; but the proportion of urea to body-weight was as high as more than 4½ grains to each pound. The prisoners were well fed; but were thin, and much below the average weight. The author explained how it is that increase of urea cannot follow exertion unless the bulk of the tissue be lessened. There was the least elimination of urea on Sundays, with the same food and with rest; but the loss of urea in the urine was exactly supplied by an increase of nitrogen formed in the fæces on that day. Hence with less labour there was less assimilation of food. The fæces were so large in the prisoners as to be nearly nine ounces per day, and contained upwards of 40 grains of nitrogen. The loss of food was, therefore, very great; and in point of nitrogen the loss was equal to the quantity found in one pint of milk. The influence of tea and coffee, and particularly of alcohol, was to lessen the excretion of urea and urinary water for a short period; but on the third day the normal quantity of urea was restored. Tea lessened the urea the most, and alcohol lessened the urinary water the most, and to the extent of twenty ounces per day, on the average, of all the men during three days. Coffee has less influence in either direction. Tea greatly increased the excretion of the chlorides; whilst alcohol lessened it in the precise degree in which it lessened the excretion of water.

A final analysis of the food and fæces was kindly made by Mr. Manning in all the experiments upon the prisoners.

The author discussed many other interesting points, and concluded his elaborate paper with a consideration of the relations of urea to carbonic acid and to nutrition. As urea is evidently a mixed product of tissue, waste, and food, it cannot be accepted as a measure of either alone. It is very probable that the determination of the amount of urea evolved is of less value in health than has hitherto been supposed, and that the most inviting field for inquiry is the determination of the proportion of nitrogen in the food which obtains admission into the blood to that which remains unappropriated in the alimentary canal. The only measure of muscular exertion is the evolution of carbonic acid by the lungs.

The address of the author was illustrated by a large series of diagrams and tables, which were suspended in the room.

SUCCESSFUL TRANSFUSION OF BLOOD IN HÆMORRHAGE FROM THE GRAVID UTERUS.—M. Martin communicated, very lately, to the Obstetrical Society of Berlin, a case of severe hæmorrhage in a woman with whom gestation was considerably advanced. Transfusion of blood was performed as a last resource; success, however, was not complete after a certain quantity of blood had been injected; and as the patient was rapidly sinking, having one fainting fit after another, a second operation of the same kind was performed, and the woman eventually recovered.

Medical Societies.

HARVEIAN SOCIETY.

DR. TOULMIN, of Brighton, read a paper

ON THE PATHOLOGY OF CHOLERA, WITH AN EXPOSITION OF THE CAUSES THAT NECESSARILY RENDER ALL MEDICINE INOPERATIVE IN THAT DISEASE.

He commenced by remarking that, in medicine as in other sciences, dogmas were sometimes received as truths without having been proved to be true, and that this sadly impeded the advancement of knowledge. That in his present inquiry into the phenomena of cholera, he found one of these time-honoured beliefs obstruct his progress, and which it became necessary to refute before he could expect his theory of the disease would be honoured with the approbation of the Society. The dogma he referred to was, that in all cases death must necessarily ensue on the cessation of respiration or the circulation of the blood. To this he objected to this extent—viz., that where black blood was not being carried to the lungs or brain, death did not necessarily ensue on the cessation of these functions, but that a passive state of existence might continue for many hours, or even days, after these functions had completely ceased. As a proof of this, he instanced the act of fainting (which sometimes was of long continuance), drowning, the hybernation of animals, and more particularly the state of trance, of which he read the curious and interesting case of the Hon. Colonel Townshend, as given by Dr. Cheyne. He admitted that life consisted in a never-ending series of phenomena, not one of which could be arrested singly without the consequent death of the individual; but he proposed a case where, in full health, all the functions should be simultaneously suspended—where, although respiration had ceased, no carbonized blood was suffused on the lungs or brain, because the veins had ceased to carry any—where, although the secretion of urine was stopped, still no uremic poisoning ensued, because there was no metamorphosis of tissue going on to produce it; and then asked, what was there in such a case to produce immediate death? Life might be suspended, but not lost; and he contended that in a similar state to this persons continued to exist for a certain time in the collapse of cholera, and were thus frequently buried alive.

He then described cholera as a certain poison, *sui generis*, which was received into the blood, and which attached itself particularly to the serous portion of that fluid; but observed, that however virulent the nature of the poison might be, still all the subsequent phenomena, terminating even with the death of the individual, arose from a series of consecutive causes of the most simple and natural kind, originating in nature's efforts to expel this poison from the system through the medium of the alimentary canal—the rice-water evacuations being, confessedly, nothing more than serum derived from the blood. From these facts he drew the following important deduction—viz., that any attempt to arrest the diarrhœa of cholera was not only futile, but mischievous.

He then observed, that all the subsequent symptoms of the disease might be traced to this one conservative act of nature: as, first, the rapid cooling of the body, which arose from the absolute cessation of all combustion of matter; that this, again, was caused by all metamorphosis of tissue being arrested, which in like manner depended on the sudden congelation of the blood, as the necessary consequence of the sudden and total loss of all its serum, the very celerity of which cut off all further supply. The absolute cessation of the circulation of the blood, he remarked, was due to this one cause, conjoined to another, either of which was equal to the occasion—viz., the shock given to the heart's action at the moment the poison was first received into the system.

The author then remarked, that in such a state as this the patient ceased to be governed by the laws of animal life, and that the attempt to keep him warm, after his own power of generating heat was lost, by wrapping him in blankets, was as unphilosophical as it would be with a marble statue.

As a demonstrative proof of the absolute stagnation of the blood, and that all change of matter depending thereon had ceased, he instanced the state of respiration, the air inspired returning unaltered; the rapid loss of heat, as well as the power of generating it; the arrest of the secretion of urine, as well as of bile, and, indeed, of all functional activity. As a proof of the latter, he noticed that mercury never produced ptyalism, nor opium sleep; that calomel, when given, was found adhering to the lining membrane of the stomach unabsorbed; and he believed that in the state of collapse any poison might be given (not acting mechanically) with impunity, until reaction was again established, when its specific effect would for the first time become apparent, to the serious detriment of the patient.

The extreme thirst always attending on cholera he explained as the inevitable consequence of the great loss of fluid in the system; and cramp, as urea deposited amongst the fibrillæ of the muscles before combustion had entirely ceased, remaining unabsorbed.

In considering the treatment of the disease, he divided the period of its existence into two stages: the first (and where medicinal treatment was all important) extending to the commencement of collapse; the second as being the state of collapse itself, to which alone all his observations had reference, and in which the exhibition of medicine was as useless as it would be in giving it to an automaton. The author then asked what, pathologically speaking, the system most loudly called for? the answer to which, not only from science, but also from the patient himself, was—*water*, to dilute the crassamentum, and thus re-establish the circulation of the blood, which when once effected, life was saved. But how, he inquired, was this to be effected when all power of absorption was lost? By the endosmose of tissue, and by this alone. By this function, he observed—which plays so important a part in the animal economy, and, as is well known, is equally active in dead as in living membrane,—the fluid swallowed is, in the most direct and simple manner, at once imbibed in its course through the alimentary canal by all the parts requiring it,—by the coats of the blood vessels, the areolar tissue, the abdominal cavities, and the viscera in general; and thus the whole system is supplied with its due degree of moisture, and this without any assistant action on its part. The author pointed out four ways by which water might be imbibed: by the mouth, the skin, the rectum, and by its injection into the veins themselves; but only drew the attention of the Society to the first two, which in practice, he observed, he had found all-sufficient. By the mouth, the ardent thirst of the patient imperatively called for water icy cold, and in fact his whole time should be employed in sucking ice and drinking water; whilst by wrapping him in the hydropathic wet sheet the whole surface of the skin imbibed water in the most subtle and effective manner. By these means, he observed, he had never seen a case in which reaction had not been established. At the same time he commented on the potency of the remedy, and urged the importance of seizing the golden moment when reaction was established to remove the patient from the wet sheet, and to place him in a room hotter than his blood, or in a warm bed, and then supplying him with some mild stimulant, in the selection of which he would rather be guided by the wish of the patient than his own fancy.

Throughout the paper the object of the author appeared to be, to insist on the occurrence of an absolute cessation of all capillary action, and consequently of the larger circulation of the blood, which he said gave the key to all the subsequent symptoms, and at the same time removed cholera out of the category of disease in general, necessitating a mode of treatment in which vital action was not required.

Reviews and Notices of Books.

A Treatise on Human Physiology; designed for the Use of Students and Practitioners of Medicine. By JOHN C. DALTON, Jun., M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York. Second Edition, Revised and Enlarged, with 271 Illustrations. pp. 690. Philadelphia: Blanchard and Lea.

IT is by no means surprising that a second edition of Dr. Dalton's work should have been called for within two years of its original publication. The first edition was, perhaps, somewhat scanty in the instruction afforded on some points; but this has been amply made up in the present. Thus, an additional chapter affords all the information that is required on the Special Senses, while the chapter on the Cranial Nerves has been rearranged, and several accessions made to our knowledge respecting them have been introduced.

Dr. Dalton has also undertaken a series of experiments to determine, as far as may be, the function of the cerebellum, and he agrees with the results arrived at by other physiologists, that it is upon this organ that the power of co-ordination of muscular movements depends. Another important fact, which has escaped other observers, has been noticed by the author—viz., that birds which have lost their power of muscular co-ordination from injury of the cerebellum, may *recover the power in process of time*, notwithstanding that a large portion of the cerebellum has been permanently removed—a fact which tends rather to unsettle the opinion of physiologists respecting that organ. Two excellent engravings are given, showing the appearances presented by pigeons, from which the hemispheres of the cerebrum, and the greater part of the cerebellum, have been removed respectively; and the contrast between the two birds is very marked, the former being in a semi-somnolent condition, and unaware of the approach of danger, while the latter is fully conscious, but unable to control its movements, either for defence or escape.

It is upon the third portion of his work, that treating of Reproduction, that Dr. Dalton appears to have expended his chief labours, and with the very best results. We have never met with a plainer, and, at the same time, perfectly satisfactory account of the complicated processes which take place in the reproduction of the species; and the illustrations, which are extremely numerous, are apparently all original, and elucidate amply every point mentioned in the letter-press. Many of the illustrations can only be, from the nature of things, diagrams, not professing to be strict copies from actual preparations; but there are, in addition, many sketches from rare specimens of early fœtal life in the author's possession.

We can cordially recommend Dr. Dalton's work as a valuable aid to the study of physiology, and one which will be welcome as well to teacher as student, both in this country and in America.

On "Supporting the Perinæum." By GRAILY HEWITT, M.D., Physician to the British Lying-in Hospital, &c. Pamphlet. pp. 78. London: Churchill.

THE author of this essay is ambitious enough to attempt the settlement of that vexed question—the proper treatment of the perinæum in labour; while he is so unmindful of the weakness, not to say the fickleness, of human nature, as to think that he will succeed. We fear that only disappointment will attend his exertions, though he certainly deserves success for the clear and rational way in which the subject is argued, as well as for the fairness with which he weighs most of the evidence which may be adduced against his views.

Dr. Graily Hewitt commences his objections to supporting the perinæum in labour by showing that it is an interference with a natural process; and he adduces one or two arguments in favour of his statement. Allowing these points full weight, what are they worth? They might be adduced with equal truth against dividing the umbilical cord of the new-born infant with a pair of scissors, after the application of a ligature. When Eve bore Cain, midwives, cutlery, and packthread were unknown; but all went on well, though, perhaps, "'twere to consider too curiously" to speculate on the manner in which this earliest recorded case of labour was conducted. The author next goes on to show that not only do authorities disagree as to the *object* for which the perinæum is to be supported, but also that they give very different directions respecting the amount of force to be employed, and as to the period of labour at which support is to be commenced. With regard to the *manner* of applying it, most writers essentially agree. We find considerable attention paid to the effect which results from supporting the perinæum, both as regards the child and the maternal structures, followed by observations as to its influence on the duration of labour; while many pages are then devoted to a review of the general causes of laceration of the perinæum. Dr. Graily Hewitt concludes, from a consideration of the mechanism of the process of dilatation of the perinæum and expulsion of the head, that the proper treatment of the perinæum in labour is, ordinarily, to abstain from active interference of any kind. In extraordinary cases, where there is great fear of laceration, he suggests that either the forceps should be carefully used, or that Dr. Blundell's plan of making a slight incision into the dilated perineal structures on each side of the fourchette should be practised. Before resorting to this latter proceeding, however, we would strongly advise the obstetrician to try the effect of chloroform, the inhalation of which agent has often seemed to us to be of particular value in relaxing the rigid perinæum.

De la Tuberculose, Nature et Prophylaxie. Par le Docteur L. PERROUD. pp. 292. Paris: Savy.

THIS book obtained the prize offered by the Medical Society of Bordeaux, and does great credit to the author. Prophylaxis was the principal subject which the Society proposed, and practically useful essays were therefore sent in. From perusing M. Perroud's work, we have become convinced that the ravages of the disease would be less severe could the excellent advice as to prophylaxis offered by the successful candidate be steadily carried out.

M. Perroud has not, however, been content to frame preventive rules, but he has written excellent chapters on the pathology of the disease, founded on personal microscopic investigation. He does not think tubercle a heterologous substance, and strives to prove that it consists of the original cellular elements spoiled by retrograde transformation. The author also believes that tubercles may be engendered by strictly local causes, and gives chapters on *local* tuberculosis, as well as on *generalized* tuberculosis; the former depending, amongst other things, on obstacles to the free action of the lungs. The generalized tuberculosis is shown to be transmitted hereditarily or to be acquired. The prophylaxis of these two species is carefully described; and here we find that the author believes, in a qualified manner, in the contagious properties of the disease. The prophylactic means suggested by the author to prevent the propagation of the complaint by hereditary transmission, and the generation of the diathesis where no hereditary tendencies exist, should be remembered, especially in this country, and we would therefore recommend a careful perusal of this part.

Nor are those means forgotten which may prevent the mischief occasioned by actual tubercular deposits; and here it would appear that much good may be done by promptly dissipating inflammation and congestion, by avoiding causes of irritation, favouring the rest of the organs, and watching over the influence of climate on the organism.

M. Perroud has availed himself of the latest researches, and offers an extremely useful epitome of the state of our knowledge on these subjects. His own experience and investigations, coupled with extensive reading, traces of which are observed at almost every page, give to the work a very satisfactory character of completeness and fulness respecting prophylaxis.

We have risen highly pleased from the perusal of this book, and hope that many of the private and public hygienic measures recommended in it will one day be carried out in this country.

A Dictionary of Political Economy—Biographical, Bibliographical, Historical, and Practical. By HENRY DUNNING MACLEOD, Esq., Barrister-at-law. Parts I. and II. Longman and Co.

FROM the talent and ability displayed in the two numbers of this work already published we augur favourably of its success. We shall look with interest to Mr. Macleod's article on the Relations which Medicine bears to the State; we have no doubt it will be treated in the same comprehensive manner as the subjects which have already appeared in the pages of this valuable Dictionary.

THE LANCET.

LONDON: SATURDAY, AUGUST 17, 1861.

A REMARKABLE collection of documents has issued from the Army Medical Department; it is entitled "Statistical, Sanitary, and Medical Reports for the year 1859." These Reports are to be made annually. That they will prove of signal service not only to the Army but also to medical science we are fully convinced. Every scientific physician must have felt and deplored the constant waste of valuable experience as to the influence of external agents upon life under the infinitely varied conditions to which we submit our soldiers and sailors. Every Englishman has been made to feel, either in his domestic affections or in his purse, the danger and the folly of thus throwing away that experience, and of neglecting the teaching of medical science. The authorities have at length arrived at the conviction that there is an inseparable correlation between the preservation and the efficiency of armies and submission to the laws o medical science and financial economy. The principle reiterated over and over again by all our great army surgeons, that it is cheaper as well as more humane to keep ten thousand veterans in health and readiness for service than to be ever recruiting and training new men, is at last appreciated. A good soldier, like a good craftsman of any other kind, is a valuable production; he cannot be replaced in a day; once possessed, he is deserving of the most studious care. We witness in this volume of Reports, devoted to the elucidation of the diseases of the soldier, an interesting proof of the progress of higher principles of administration than have hitherto prevailed at the War-office; and we repeat that, even as civilians, these Reports demand our thanks as contributions to general medical science. No country in the world enjoys equal opportunities with England of extending our knowledge of that fundamentally important branch of Medicine which treats of the causation of disease. Our men are scattered over the whole surface of the habitable globe, exposed to every variety of influence that can affect the human constitution. To the mere physiologist the opportunity of observing how man exists under these diversified agencies must be of deep interest; he could not hope even to devise, much less to carry out, experiments so multiplied and on so vast a scale. To the practical physician the opportunity of studying and comparing the different aspects of disease in different climates, in regard to their origin, their course, and their treatment, must be looked upon as a new source of progress for his art. The science of Medical Topography, which embraces a wide area of the field of Etiology, is as yet comparatively untouched. The fruit it must one day yield it is difficult to estimate. It is the special and paramount duty of this country in the cause of humanity to cultivate this field.

The first part of the volume is devoted to a "Statistical Report of the Health of the Army in 1859," drawn up, we need not say with skill and conscientiousness, by Dr. GRAHAM BALFOUR. We cannot attempt, on this occasion, to enter upon any analysis of this Report. We can but recommend an attentive examination of it, not to statisticians only, delighting in mathematical exercitations and treating man and his diseases as abstractions, but also to the student of medicine. The Report opens a source of medical knowledge at once valuable for its novelty and for its corrective power when applied to the illustration of the knowledge acquired from the ordinary channels.

Then follows the Sanitary Report, condensed from the reports of regimental surgeons, by Dr. LOGAN. Appended to this are several most interesting descriptions of the sanitary features of hill-stations in India. The extension of the system of preserving our men by locating them in periods of inaction in the more congenial climates of the hills is an object of the utmost importance. Information of an accurate kind as to the health of troops in these stations is eminently desirable. The continuance of these reports will permit opportunities of contrasting the efficiency of troops so preserved with that of others exposed, according to custom, to the pestilential and enervating air of the plains.

Dr. MAPLETON contributes the "Medical Report." This includes several valuable papers on dysentery, sun-stroke, pleurisy, surgical operations, and on the determination of the carbonic acid and watery vapour in the air of the wards at Fort Pitt, communicated by medical officers and cadets. But, to our minds, the most interesting feature of this section is the account of the establishment of an Army Medical School detailed in two lectures by Deputy Inspector-General LONGMORE, the Professor of Military Surgery. The most accomplished student ever turned out of a London hospital must be conscious of his deficiency in many important points when undertaking the new and strange duties of a military surgeon. Some special preparation is absolutely necessary; and this not simply to qualify the young surgeon to perform his duties, but still more for the purpose of investing his advice with that authority amongst his combatant brethren, and especially his commanding officers, which these were perhaps sometimes justified in withholding from young men whom they knew to be brought up exclusively in schools of an altogether civilian character.

A sketch of the constitution of the School will best convey an idea of its importance. The candidates, or cadets, are divided into four groups. One-half are employed during the morning in the practical work of the hospital—one in the surgical, the other in the medical division; the remaining half work in the laboratory devoted to hygienic manipulations and experiments, or in the room appropriated to microscopical demonstrations. All the four groups together attend in the afternoon the lectures delivered in the several subjects of each course. Perhaps the most useful course is that confided to the able care of Dr. PARKES. The duty of this Professor is to instruct the future army surgeons in all the causes which specially affect the health of the soldier, whether diet, clothing, habitation, education, habits, his peculiar duties in time of peace, or situation and circumstances in time of war. They are practically taught the methods of determining the quality of the water the soldier drinks, of the air he breathes, and of the food he consumes, and of detecting the adulterations to which it is liable. The principles of ventilation, warming, draining, cleansing, of architectural arrangements, are demonstrated. The influences of soils and geological formations, and the nature of camp diseases, are shown to him. The varying conditions of health, and the causes producing these varying conditions in the different stations of the British army, are carefully explained.

Fortified with all this knowledge, the young surgeon enters upon active service with a degree of confidence to which his predecessors must needs have been strangers, and with a degree of authority which his comrades could not be expected to repose in one who had enjoyed no opportunity of obtaining precise information upon these matters. Whatever be the destination of the young army assistant-surgeon, he enters upon his charge with all the available information concerning the local and general sanitary influences which is necessary to make him an efficient officer.

The Chairs of Military Surgery and Clinical Medicine are admirably filled by Mr. LONGMORE and Dr. MACLEAN, Deputy Inspector-General. Dr. AITKEN is the Professor of Pathology. Under this gentleman special attention is given to the microscopical manipulation and to the examination of morbid specimens. The Professors, with the Director-General, and the chief medical officer at Chatham, Dr. MUIR, C.B., constitute a Senate, whose function it is to regulate the business of the School.

The School was opened with forty-three students on the 2nd October, 1859. It has not therefore yet been in operation more than two years. It has worked well, and no one can reasonably doubt that it will in future years be the means of greatly raising the standard of our Army surgeons individually and as a body. Men so trained and fitted for their multifarious duties will increase the strength of the Army, will advance science, and earn for their profession the cordial respect of all the inhabitants of the countries where our armies may be stationed.

MR. CASAMAJOR, the celebrated sculler and able conductor of the aquatic department of *The Field*, died suddenly on the night of Tuesday, the 6th inst. Previous to his rowing for the diamond sculls at Henley this summer he had been suffering from an attack of rheumatism. Contrary to the advice of his friends he entered into the contest, and it is natural to conclude that the rupture of the bloodvessel from which he died was consequent upon his exertions on that occasion. Friendly as we are to athletic sports, this lamentable case suggests some reflections upon the evils which must occasionally arise from undue and prolonged physical efforts. No doubt the rheumatic attack of which Mr. CASAMAJOR had been the subject rendered him especially liable to the mischief which occurred. But his is not a solitary case; men in the prime of life, healthy and vigorous, have on many occasions irretrievably ruined themselves by intense and unnatural bodily exertion. The strain upon the vascular system during a prolonged and ardent struggle is so great that the astonishment is, not that fatal accidents occur, but that they happen so comparatively seldom. We say "so seldom," but we believe that injuries of a permanent though not of a fatal character occur much more frequently than is recorded. Cases constantly come under the notice of the medical practitioner of impaired health and of persistent disease consequent upon overstrained physical powers. The call upon the powers of endurance has been such that healthy reaction could not take place, and, like the overbent bow, the human body has remained in a state of impaired force. It is well known that some of our most celebrated posture-masters, clowns, and harlequins have become prematurely old and decrepid as the results of the exercise of their calling. The athletic frame of the late Mr. LISTON broke down in its prime from the great physical exertion that he underwent. He died from a disease which was fairly traceable to his steeplechases on foot, in which he distanced all competitors in his early morning scampers over the fields and hills in the neighbourhood of London.

The evil effects resulting from overworking the brain are the theme of constant observation. How many a word of warning and of comment is recorded when a statesman like SIDNEY HERBERT sinks in the zenith of his career from the overwork which he has undergone. Such comments and such warnings are equally applicable to those cases in which the body becomes shattered by overtasking the mere *physical* powers. In the present day of excitement and over-exertion of both body and mind, a word in season cannot be out of place. There is a fierce struggle going on. Competition is everywhere. We work as though the capacity of the human system were inexhaustible. We travel for *pleasure* as if the amount of labour we undergo is to be regarded as the measure of our enjoyment. Thousands in this great city spend many anxious hours in their daily pursuits, then hurry off by railways long distances into the country, snatch a few hours of repose in the pure air of a rural district, and hurry off again in the morning, anxious and excited, to catch the early train that brings them again to the scene of their labours. The excitement goes on and is daily increasing; and yet we have occasionally sad warnings of the dangers of the overwork. Men fall dead from heart-disease after a hurried journey to the station, and medical practitioners are acquainted with a serious class of maladies which have sprung up as the consequence of this overstraining of the faculties. Cases like that of the lamented Mr. CASAMAJOR stand out in prominence from a host of others; but there are innumerable shades in the picture gradually shadowing off from the dark regions of death to disease in a vast variety of forms. It would be well if we could gather something like experience from such facts, but the voice of warning falls too frequently on unwilling or unheeding ears.

Medical Annotations.

"Ne quid nimis."

MILITARY SURGEONS.

AS is usual with military surgeons, those attached to the Federal army of America have done their duty nobly. Mr. Russell, the able correspondent of *The Times*, states that "the surgeons remained on the field when all others were retiring or had left. One is reported killed; six are prisoners in the hands of the enemy, engaged in attending the wounded of both sides, and an invaluable aid to the scanty medical staff of the Confederates." This is gratifying to us as a profession. It is a noble tribute to the humanity which characterizes, under whatever circumstances they may be placed, the disciples of the healing art. Far be it from us to depreciate the heroism of the combatant soldier when he rushes to meet in mortal strife the opposing force; but there is a heroism of a higher character—the heroism of the men who, after the fierce conflict is over, administer to the wants and necessities of those who have been wounded in the fray. Cool amidst danger, devoted to their humane efforts to preserve life, they pursue their beneficent calling amidst peril and without the hope of adequate reward. What a commentary is this upon the injustice and neglect to which medical officers attached to armies have been almost invariably subjected!

ADULTERATION OF BREAD.

THE Adulteration Act has been but little used, the saving clauses which embarrass its penal application having sufficed to render it practically almost inoperative. It is surprising how difficult it is to obtain a conviction for adulteration under any circumstances. One little hitch was curiously illustrated in the course of an appeal to Quarter Sessions by one Edward Ashby against a conviction by T. Dagwall and F. W. de Salis, Esqrs., for using in the trade of a baker ingredients contrary to the Sale of Bread Act, 6 and 7 William IV., cap. 37.

"The investigation was made upon an information laid by Mr. James Greig, inspector of weights and measures of the Brentford and Uxbridge division; and the charge against the appellant, a baker at Harmondsworth, that he had adulterated bread which he had made.

"Mr. Poland said he had a number of objections to the conviction, which was bad in point of law. The principal one was that the conviction did not set forth that the bread in question was for sale, according to the Sale of Bread Act. There was no evidence to show that he might not have made it for himself; and if a man chose to adulterate bread for his own use, he was guilty of no offence. The offence was in adulterating it for sale, and this conviction did not set that forth. Therefore (contended the learned counsel) the conviction was bad, even on that ground alone.

"Mr. Taylor contended that the defect, if there was one, could be amended under Jervis's Act.

"The Court said the conviction was evidently bad, and must be quashed. The Assistant Judge observed that this was not the first case of the kind that had come from that part of the county, where the conviction was improperly made out; and if the magistrates had a person who was not competent to perform the duty, they ought to have one who was.

"Mr. Poland applied for costs against the inspector, who he contended was the sole respondent in the case, and not the justices who had convicted the appellant.

"The Assistant Judge thought the learned counsel had been already lucky enough on behalf of his client.

"Mr. Poland submitted that by the statute the Court was bound to give costs to appellant or respondent; and in this case the respondent, having failed, must pay them, as they went with the event."

The Assistant Judge, however, took time to consider. Really this case seems an outrageous illustration of "failures of justice." But it may afford a useful hint for future operations.

COMPENSATION FOR INJURIES.

IN the course of an action for compensation for injuries to a passenger by railway accident, tried last week, a fresh instance was seen of the working of a vicious proceeding to which some surgeons have lent their sanction and co-operation. The surgeon in this case stated in evidence, that he was called to cases of accident on the line in question, and was employed by the Company to visit sufferers. This is a legitimate exercise of professional duty; it is right and fitting, for the benefit of the sufferers, that a Company should provide reliable assistance in case of accident, and it is also just that they should be able to secure a careful and impartial report of injuries which are likely to be assessed at a money value. But the gentleman made a further statement, and described a course of proceeding which he adopted, and which cannot be approved or justified. He made it his business, he said, to enter into the question of compensation. He highly estimated the money value of the injuries done, and endeavoured at once to arrange financially with the patient, and to obtain his consent to some agreement as to the sum of money which he would accept as compensation in respect of his injury. By thus becoming the bargainer of the Company—by mixing up the function of medical adviser and financial agent, the medical man degrades his calling, and lowers his position. It is his business to do all that may be done in order to diminish the present pains and future disablement of the patient; it is his business, if called upon, impartially to report his opinion as to the nature, extent, and probable result of those injuries. But there his function stops. It is not for him to drive a good bargain for his employers. It is then the business of whomsoever it may concern financially, to arrange the money damages. The Company very naturally desire to avoid the uncertainties and the cost of law proceedings. In that case, let these injuries be, by common consent, referred to the arbitrament of medical assessors—men of high position and specially qualified, aided, perhaps, by an eminent lawyer. But the surgeon who combines the functions of healer and bagman can perform neither satisfactorily.

SUICIDE OR MURDER?

THE impunity with which suicide may be countenanced, and, so to speak, aided, promises to produce a plentiful crop of accessories to that crime. Last week we recorded a case in which a wife looked for thirty hours on the agonies of her husband's death, by arsenic self-administered, with philosophic indifference, which may have concealed more or less of satisfaction. The burden of the evidence showed, and the verdict of the coroner's jury affirmed, that had she interfered earlier, or sent for proper medical advice, the life of the man might have been saved. This is distinctly an atrocious crime, although legally it appears not to be recognized as a crime, and in no way renders the culpable person amenable to punishment. This week the reports of the police tell of a suicide by laudanum, in which the daughter is stated to have been equally well aware that her mother had swallowed that deadly narcotic, but took no means to cause aid to be rendered to her. The consequence was that the surgeon called by the police mistook the symptoms for those of alcoholic intoxication, and, applying only the remedies for that condition, was content to see his patient partially roused, and allowed her to relapse, unwatched, into fatal unconsciousness. This woman, although a suicide, owed her death to the wicked neglect of her daughter; for it is certain that had the surgeon been furnished with the information which would have prevented his error, and which that daughter possessed, the woman's life would have been saved. Surely here is matter for legislation.

AN ACT

TO FACILITATE PROCEEDINGS BEFORE JUSTICES UNDER THE ACTS RELATING TO VACCINATION.

WHEREAS it is expedient to make further provisions in relation to proceedings before justices under the following Acts; that is to say, an Act passed in the session holden in the third and fourth years of the reign of her present Majesty, chap. 29, intituled "An Act to extend the Practice of Vaccination:" an Act passed in the session holden in the fourth and fifth years of the reign of her present Majesty, chap. 32, intituled "An Act to amend an Act to extend the Practice of Vaccination:" an Act passed in the session holden in the sixteenth and seventeenth years of the reign of her present Majesty, chap. 100, intituled "An Act further to extend and make compulsory the Practice of Vaccination:" Be it enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited for all purposes as "The Vaccination Acts Amendment Act, 1861."

2. The guardians of any union or parish, or the overseers of any parish where the relief of the poor is not administered by guardians, may appoint some person to institute and conduct proceedings for the purpose of enforcing obedience to the said Acts or any of them within their union or parish; and as to all expenses incurred by any person so appointed, or by any registrar of births and deaths, or by any medical officer of health appointed under an Act of Parliament, in proceedings for enforcing penalties under the said Acts or any of them, if the justices or court before whom such proceedings are had certify that such expenses ought to be allowed, such court or justices shall ascertain the amount thereof, and such amount shall be

payable out of the rates for the relief of the poor of the parish where the person for the time being dwells in respect of whose default or offence the same were instituted; and the court or justices shall ascertain the amount of such expenses. And proceedings for enforcing penalties under any of the said Acts, on account of neglect to have a child vaccinated, may be taken at any time during which the parent or guardian is in default.

Correspondence.

"Audi alteram partem."

HOMŒOPATHIC CONSULTATIONS.

To the Editor of THE LANCET.

SIR,—The explanations I offered in your journal of the 20th ultimo, regarding my alleged communion with homœopaths, not appearing satisfactory to the profession, I beg to state that, *for the future, I shall feel it incumbent on me to decline any meeting or so-called consultation with homœopathic practitioners.*

Enjoying a large share of professional confidence, and holding various important public appointments, I should consider myself unworthy of such honour were I, at the present time, to offer any objections to the expressed wishes and declared opinions of my professional brethren.

I am, Sir, your obedient servant,
WM. FERGUSSON, F.R.C.S.

George-street, Hanover-square, Aug. 1861.

To the Editor of THE LANCET.

SIR,—From Mr. Fergusson's note, published in your journal of last week, I can but infer that he received no history (or an incorrect one) of the case; did not ascertain the cause of the patient's symptoms, and gave no advice as to the future treatment. If this really were so, can anything be more farcically dishonest than this form of mock consultation? I would simply ask, Who was to be benefited by it? Certainly *not the patient!* The plea of humanity, therefore, cannot be urged as an excuse; nor can I understand how the welfare and dignity of the Royal College of Surgeons (which all members are bound to maintain) can be honourably supported by such irregular communions. I feel convinced that Mr. Fergusson was used as a mere professional tool, and roughly handled too, as the patient was led to believe "that few men possessed such a delicate sense of touch" as the homœopath, who could detect more than Mr. Fergusson.

I am, Sir, yours faithfully,
EDWARD RAY, F.R.C.S.

Dulwich, August, 1861.

CANCER OF THE MALE BREAST.

To the Editor of THE LANCET.

SIR,—Seeing you are publishing in THE LANCET cases of scirrhous cancer of the male breast which have occurred in hospital practice, I think probably the report of cases from the country may be equally interesting to your readers. I therefore venture to forward one, which has recently come under my treatment.

J. C——, aged thirty-seven, robust, and of full habit, consulted me on May 15th about a tumour in the right breast. On examination, I found it to be a scirrhous cancer. He described it as having commenced about thirteen months ago, with a pricking and itching in the part, which he thought arose from the friction of his braces, which he had altered. He soon discovered a lump, which continued to increase to the size of a small orange, when I saw it. He cannot remember having received any injury to the breast, nor assign any cause for its origin. I recommended its immediate removal, to which he assented.

On May 22nd, having placed him under the influence of chloroform, I removed the tumour by excision. About four or five ligatures were required. The parts were brought together and retained by sutures. The case progressed well, and in four weeks had healed. As the glands in the axilla are free from disease, I hope the recovery may be permanent.

I am, Sir, your obedient servant,
JOHN LUDDERDALE, F.R.C.S.

Kinbury, August, 1861.

THE PRACTICE IN PLACENTA PRÆVIA.

To the Editor of THE LANCET.

SIR,—Knowing your readiness to assist in the settlement of all practical medical questions, I now respectfully request your kind co-operation to obtain statistical data on a most important obstetric subject—namely, the practice adopted in cases of placenta prævia. From the various opinions now entertained by the profession, the question must be considered as debatable and unsettled; some advocating one line of practice, some another.

Now it is well known, from my former communication to THE LANCET, that I recommend (conditionally) the placenta being completely detached. As the statistics of this practice, either in accordance with my own views or with the opinions of others, are, however, so limited in comparison with the statistics of the other modes of practice which this operation is intended to supersede, I beg, through your influential journal, to appeal to the general profession to aid me in more fairly estimating its comparative merits.

Those who kindly comply with my request will much oblige me by stating the case or cases according to the suggestions below, and by granting me the privilege of using them for statistical purposes. The name of each contributor shall be inserted in connexion with each case (when tabulated), if such a course is approved of by him.

I am, Sir, yours respectfully,
THOMAS RADFORD, M.D.

Higher Broughton, Manchester, Aug. 1861.

P.S.—The following particulars are required:—

1st. The number of cases of placenta prævia.
2nd. Whether partial or complete.
3rd. What was the state of the os uteri?
4th. What was the general condition of the patient?
5th. What was the degree of hæmorrhage?
6th. What was the presentation (if ascertained) of the child?
7th. What was the mode of practice? Was it—
- A. To leave the case to the natural powers?
- B. To merely rupture the membranes, and then leave the case to nature?
- C. To turn and deliver the child?
- D. To completely detach the placenta, and then leave the child to be expelled by the uterus?
- E. To completely detach the placenta and then extract it, and afterwards deliver the child?
- F. Was the placenta separated or detached by the hand or by a finger?
- G. What was the degree of hæmorrhage which occurred after the complete detachment of the placenta?
- H. What was the mother's fate?
- I. What was the child's fate?
- K. Was galvanism applied?
- L. At what period of pregnancy, and if first or which other pregnancy?

THE PROPOSED SANITARY MUSEUM.

To the Editor of THE LANCET.

SIR,—There is an error in your notice of the exertions of the Medical Officers of Health to establish a Sanitary Museum, which it is desirable to correct. At their meeting in January last it was unanimously resolved, "That it would materially assist the labours of Health Officers, and promote the cause of sanitary science, if all the more direct sanitary appliances were brought together in the International Exhibition of 1862, and if a permanent Sanitary Museum could be formed in the metropolis." A sub-committee was appointed to carry out these objects. After some delay the first object was attained; in reference to the last, the only difficulty has been to find a convenient room, of easy access, for the proper display of models and appliances. Several manufacturers, engineers, and inventors promised to present their works to such a Museum free of cost; indeed our Association has already received several such presents. Application for a room has been made to the Society of Arts and to the Metropolitan Board of Works (not the Government, as you have it), with the results stated in your journal. It is due to the Chairman of the Metropolitan Board of Works to say that he cordially approved the idea of a Sanitary Collection for public reference, and made every effort to provide space for it at the Offices in Spring-gardens.

Early in July, application was made to the Government, through the Chief Commissioner of Works, for a room either at the Local Government Act Offices, Burlington House, or the British Museum, to which no reply has yet been received. It is to be hoped that, after the extraordinary saving of life and money the late Lord Herbert's sanitary labours have effected in the army, the Government will be alive to the utility of such an exhibition. Hitherto the Government has not given much encouragement to practical sanitary labourers. In order to save a paltry £200 or £300 per annum, they suppressed the Metropolitan Health Officers' weekly return of all the fresh cases of sickness treated at the cost of the ratepayers, the charitable public, and the medical profession in London. These returns, under the editorship of our present esteemed President, Dr. Dundas Thomson, had attained a great degree of completeness, and were of the greatest possible utility to Health Officers. Had they been continued, I believe they would have tended, in no small degree, to improve the status of the Poor-law Medical Service, and of the profession at large.

I am, Sir, your obedient servant,

Finsbury-square, Aug. 1861. SEPTIMUS GIBBON, M.R.

ŒDEMA OF THE LARYNX.

To the Editor of THE LANCET.

SIR,—The disease of œdema laryngis appears, from the reports of so many fatal cases, to be imperfectly understood and imperfectly treated. This peculiar form of disease makes its appearance usually in male subjects about the age of forty-five, and I think more frequently in the higher classes of life, and amongst *bon vivants*, rather than those of humble life. It usually commences by a slight sore-throat; this is followed by pain and tenderness in the region of the larynx, attended with some cough and febrile disturbance. In from forty-eight to seventy-two hours a difficulty of breathing begins to be felt, attended with loss of voice and some heart symptoms. Up to this period the usual treatment is adopted, without arresting the disease; but now, from the increased difficulty of breathing, the operation of tracheotomy is usually performed, and occasionally that of larnygotomy. By this means an aperture is made in the air-tube; but this is generally of small size, and insufficient to allow of the escape of the effused mucus, and to sustain the respiratory action of the patient. In this lies the great error in the treatment of this disease, proceeding from an erroneous view of the true nature of œdema laryngis. The œdematous state of the larynx is not the disease itself, but the *consequence* of the diseased inflammatory action, and is in fact the termination of this by effusion of mucus into the submucous areolar tissue, as the effusion of serum beneath the cuticle is the result of the application of a blister or other irritant. The difficulty of breathing is induced by the elevated state of the mucous membrane lining the chordæ vocales, the epiglottis, &c., and is the result of a mechanical obstruction to the free passage of the air. Unfortunately, under these circumstances, a too small incision is made into the trachea or larynx, the effused fluid slowly exudes, the opening is obstructed, the difficulty of breathing continues, and the patient dies asphxiated.

Now, the operation which I consider should be performed is that of laying freely open the interior of the larynx; and the best mode of doing this is by division of the thyroid cartilage along the mesial line, the incision being carried downwards through the cricoid cartilage if necessary. By this means a free escape is given to the effused fluid, the breathing of the patient is provided for, and in a short time the elevated state of the mucous membrane will subside. I can see no rational objection to this operation; there is really no danger, and even the chordæ vocales need not be touched. In a few days the wound may be closed, and sufficient union of the alæ of the thyroid cartilage will be soon established.

I regret to say that I have not had an opportunity of testing the practical correctness of this proposed operation; but I feel assured of its success if properly performed, and not postponed till too late a period.

Through the kindness of my friend Dr. Macdonnell, of the Mountjoy Prison, I had, however, an opportunity of examining, some few months since, a patient who had attempted suicide by a longitudinal incision of the thyroid cartilage. The man had nearly recovered, and the only symptom remaining was a husky state of the voice, which I have no doubt has since subsided.

There is no danger, either, in prolonging the incision downwards through the cricoid cartilage. I find that Mr. Erichsen has recently done this in a case of "asphyxia from acute disease of the larynx," with the best results, (see "Science and Art of Surgery," p. 849.) I need hardly add that the wound should be kept open by appropriate means in the hands of one or more careful assistants, and for this purpose the use of retracters is to be preferred to that of canulæ, &c.

I am, Sir, your obedient servant,

London, July, 1861. M. W. HILLES, M.R.C.S.

THE ALCOHOL QUESTION.

To the Editor of THE LANCET.

SIR,—The above interesting subject having been discussed by Dr. Daniel Hooper (*vide* THE LANCET of May 25th, 1861), may I ask a brief space for a few remarks upon this matter? It is one of the highest importance to the public, when we consider how great a stress the laity put upon the opinion of the profession on this point.

The first question that seems to arise is—What *is* a moderate quantity of alcohol to be taken per diem? Let us say a pint of beer, and inquire what are its effects, and how it may be expended.

On a person accustomed to its daily use the effect is inappreciable; but to a person habitually a total abstainer it will first cause a temporary exhilaration, (lasting, say, for twenty minutes,) next a sensation of drowsiness, and for an hour or two after a corresponding depression.

Now how is it expended?

One pint of beer will contain about 98·30 grains of alcohol, or 51·24 of carbon, 12·81 of hydrogen, and 34·16 of oxygen.

Now, if this is assimilated (which is, to say the least, doubtful), is it an economical form of food? Compare it then with an ounce of bread, which contains 118·94 grains of carbon, 40·94 of hydrogen, 315·93 of oxygen, and 4·14 of nitrogen. Now we know that naughty boys can live on bread and water, but do we find that good or bad boys or men can live on beer alone? if they cannot, how can it be a food proper?

Then comes the question—Is alcohol assimilable?* In large quantities we know that it passes through the blood as alcohol unconsumed. Does any other food proper—say bread, potato, arrowroot, rice, beef, or mutton—ever pass through the blood in the shape of its original composition? Of course not.

There is one authority to whom Dr. Hooper has not referred, whose investigations of late on the relation of food to respiration have thrown much light upon the subject. I refer to Dr. Edward Smith, of the Hospital for Consumption, who shows, perhaps without intention, but I think most plainly, that alcohol does not deserve to rank as food, inasmuch as it is one of the worst respiratory excitants; and since it is, I think, allowed that food possesses value in proportion as it excites respiratory changes, we shall see that by comparing brandy with bread, the former gives only 0·38 while the latter shows from 1·48 to 2·4 per cent. increase of carbonic acid in respired air.

Dr. Hooper refers to the brain-operatives as requiring alcohol, while the muscular-operatives work well on ginger-beer.

Now a somewhat extended acquaintance with public lecturers—a class of men who live by brain-work—has shown me that the successful ones find it most conducive to their studies to pursue them on the total abstinence principle.

To class alcohol with tea, coffee, and butter, as with foods proper, seems to me a fallacy, inasmuch as tea and coffee are more condiments than foods; while butter is an article of very low respiratory excitation.

In speaking of alcohol as a poison, we must not forget that Nature has ordained a sort of elasticity in the power of man's digestion which enables him, without harm, to consume a small portion of articles of diet which in excess are poisonous, as tea, coffee, &c.; but this does not of itself entitle them to be classed as foods proper.

If "the aim of all food is force," what relation will alcohol bear to force in those who are not (to use a parallel word) acclimatized to its use?

In reference to Dr. Chambers' remark, that alcohol does good because a man used to its consumption feels better with than without it, I beg to suggest to such persons to make a trial of

* The researches of MM. Lallemand, Perrin, and Duroy point to the fact that alcohol passes in great measure undigested through the blood.

a long abstinence from it, and if they find (as they assuredly will) that they can do all without which they formerly could with it, then I think the conviction will force itself upon them that they have hitherto been wasting what might have been turned to a better use than the consumption of the cereals in the shape of alcohol.

As I do not wish to occupy your space with unnecessary verbosity, I will content myself with observing, that alcohol alone of all other articles of diet fails to satisfy the appetite by consumption. There is a limit to the quantity of beef, bread, &c., as well as of jam tarts, which we can consume, and all the "standing up" in the world will not enable the eater to use more than a given quantity; but alcohol requires no standing up to enable the consumer to take more than is good for him.

Trusting that these remarks will induce Dr. Hooper to continue his subject (able as I know he is to do so), and that further investigation will induce him to remodel his views,

I am, Sir, your obedient servant,

Lancaster, Aug. 1861. METCALFE JOHNSON, M.R.C.S.

POISONING BY STRYCHNIA.

To the Editor of THE LANCET.

SIR,—Several cases of poisoning by strychnia having occurred, and considering it advisable for every medical man to give the result of his experience deduced from actual observation, I forward the following case, in the hope that others who may feel inclined to adopt the same measures may meet with as successful results as I have—this being the third case that has occurred in my practice, and all having recovered under the same treatment.

I was sent for on the 22nd of January last, at half-past one P.M., by Mr. Yarrow, to see a person, and on my arrival I found a woman, aged twenty-eight, in the following state:—Lying on her back on the floor, quite sensible; arms and legs stretched out to their fullest extent; hands clenched; toes flexed; legs close together; body in a state of opisthotonos. Countenance livid and anxious; eyes starting from their sockets and fixed, pupils widely dilated, conjunctivæ highly injected; teeth firmly clenched. Breathing irregular, and at times almost ceasing; skin hot, bathed in perspiration, and steaming; pulse rapid and scarcely perceptible. The spasms relaxed at times, but did not entirely cease for one minute; and on the slightest touch of the body or legs, or on attempting to give her anything to drink, she would immediately cry out, "My legs! my legs! hold me! hold me!" and then utter a shriek. The head would then become drawn back, arms and legs extended, hands clenched, and the body in a state of opisthotonos; face and head a deep purple; foaming at the mouth; teeth clenched; eyes protruding and fixed; heart palpitating violently; and the breathing irregular, and as if drawn through a reed. No action of the bowels or bladder took place.

From the above symptoms there could be very little doubt entertained as to its being a case of poisoning by strychnia, but no information could be obtained from the friends who were present to throw any light on the subject. The patient, when asked if she had taken anything to destroy herself, shook her head.

Half an hour had elapsed since she had been discovered in the above condition before I saw her; and she was supposed to have been in this state about ten minutes, as near as the people in the house could judge, from the time they saw her in apparent health. As the stomach-pump was not at hand—and even if it had been I could not have used it, the teeth being so firmly clenched and all the muscles of the neck rigid—I administered chloroform, and after a few minutes had the satisfaction of seeing the violent convulsions become less severe; but on attempting to give her an emetic, the contact of the cup with the lips immediately brought on the convulsions as bad as ever. Under these circumstances I waited till she was again under the influence of chloroform, and then succeeded in passing a small funnel between the teeth, and by degrees got down two drachms of sulphate of zinc dissolved in a little water, repeating it every quarter of an hour until three doses had been taken, when vomiting took place, but not to much extent. The poison had been taken just before her usual dinner time, and on an empty stomach.

Mustard poultices were applied to the calves of the legs and soles of the feet, and along the whole course of the spine; and she was kept under the influence of chloroform for nearly three hours, its administration being discontinued at intervals only to allow of the emetics being taken. The effect of this agent was most wonderful in arresting the frequency and allaying the violence of the convulsions; for when under its influence the violent spasms relaxed, the pulse became less frequent and more firm, and the countenance assumed a more natural hue; but as soon as its effects passed off, the convulsions returned as violently as before. In all, about from an ounce to an ounce and a quarter of chloroform was administered.

At five P.M., the spasms recurred about every five minutes, but were much less severe. Some strong coffee and brandy was now given, as she was very much exhausted, and a short time afterwards a large dose of camphor and opium.

At ten P.M., she had slept for about an hour; slight convulsions occasionally and startings of the body when touched. Some castor oil was now ordered, and milk and magnesia at intervals. For the next thirty-six hours she had some starting and twitching of the limbs, and on the third day was able to get up.

It was not till late in the evening I was enabled to get the information from her that she had quarreled with her husband, went out and bought some rat poison, and took it in as little water as possible. On inquiry at the chemist's where it was bought, I found it to consist of oatmeal, Armenian bole, and strychnia, about thirty per cent. of the latter. From the quantity of the powder taken, there could not have been less than two or three grains of strychnia.

This is the third case of poisoning by strychnia that has come under my notice, all occurring in females, and in all after their recovery from the poison I have had to attend them for some time for dyspepsia; and in one case the patient was subject to violent attacks of spasms in the stomach, occurring two or three times a week for two years. The patient in the above recorded case suffered from dyspepsia for some weeks after. This may have been quite independent of the strychnia; but coming on almost directly after, and continuing, would almost lead one to imagine it had its origin from that source, more especially as they had never suffered from dyspepsia before.

I am, Sir, your obedient servant,

City-road, August, 1861. JOSIAH T. POWELL, L.R.C.P. ED.

CONCEALED HÆMORRHAGE.

To the Editor of THE LANCET.

SIR,—Will you find room for the insertion of the following case, which is interesting in itself, and illustrative of the appalling contingencies against which the anxious medical practitioner often has to contend; the result is also calculated to encourage the young practitioner:—

I was summoned to attend Mrs. M—— late on Saturday night, the 13th of April last. She was in labour; but the pain was only abdominal, and did not cause any contraction of the uterus. On examination per vaginam the parts were found cool, soft, and well lubricated with mucus; the os uteri soft, widely dilated, and low down; the anterior fontanelle presenting. No alteration occurred after every abdominal pain; the parts remained as flaccid as before. My patient's condition was most unfavourable. She was suffering from emphysema of the lungs, and from heart disease, while an anæmic state prevailed. I gave stimulants with ergot, but with no effect. I then considered it advisable to rupture the membranes. Very little liquor amnii followed; but in some few minutes labour with its proper pains in the back came on, with uterine contraction and expulsive efforts. In half an hour the child was born, and was healthy; the placenta came away easily, and the uterus contracted thoroughly. I put on a bandage, and went down stairs for a short time. When I again went up stairs, to my great surprise I found my patient tossing her arms about, with deafness, and loss of sight; the pupils dilated; extremities cold; no pulse, and the second sound of the heart could not be heard; fifteen inspirations in the minute. The baby had been cast to the bottom of the bed. On feeling the abdomen, I found it as large as when the child was in utero; flooding was going on, and I diagnosed hæmorrhage proceeding within the uterus. I gave brandy and ergot, and introduced my hand within the uterus. I removed about a pound of coagulated blood. The uterus contracted, and, by means of stimulants in quantity and warmth, the pulse returned, together with the faculties of sight, hearing, and speech. After half an hour had elapsed, I went down stairs; but was again hastily summoned by the nurse about half an hour afterwards, who thought Mrs. M—— was dying. I found her in the same state as before, and the uterus full of coagu-

lated blood. Again large doses of brandy and ergot were given, and cold water was injected from a height into the uterus. I also introduced my hand, grasped the uterus, and kept my hand there for three quarters of an hour—changing hands.

These measures succeeded at last; no more hæmorrhage occurred; the pulse, &c., returned. I stayed by the bed-side for twelve hours; and finding her somewhat excited by the stimulants, I gave her one drachm of Battley's sedative solution, which induced sleep; and this anxious case went on well afterwards in every respect.

Clay-cross, Derbyshire, Aug. 1861. E. P. HOUGHTON, M.D.

POISONING BY ACONITE.

To the Editor of THE LANCET.

SIR,—The case of poisoning by tincture of aconite recorded in your "Annotations" of the 10th instant, reminds me of a case which happened in my practice, the notes of which may be interesting to your readers:—

On the 10th of June last, Mrs. M——, a lady accustomed to take two teaspoonfuls of laudanum occasionally for a painful affection of the bowels, took in mistake two teaspoonfuls of tincture of aconite, which she had in a bottle of the same size and shape as the laudanum one, to apply to her face for tic douloureux.

One hour after taking it, some strange sensations she experienced led her to find out her mistake, and she immediately rushed off to me. I gave directly an emetic of sulphate of zinc, which acted well in two minutes. After its operation, on trying to rise, she exclaimed, "I have no use in my legs!" I carried her to a couch. The face had a pinched, anxious expression; the forehead wrinkled and corrugated between the eyebrows; the pupils slightly dilated; the pulse 45, feeble and intermitting; extremities cold; consciousness quite unaffected. She said she felt a burning sensation in the fauces, and a constriction at the chest; and that she had no feeling in her legs, arms, and face. The feeling of having no feeling (to use a paradox), she said, was "dreadful—worse than any pain."

Strong coffee and ammonia were given about every fifteen minutes. She remained in this condition two hours, and then the symptoms gradually subsided. In eight hours they had quite left her. I may mention that the tic was cured.

I am, Sir, your obedient servant,

Commercial-road, Aug. 1861. JOHN W. KAY, M.R.C.S.

THE DEGENERATION OF RACE.

To the Editor of THE LANCET.

SIR,—As daily experience and observation fully convince me of the truth of your article on the Degeneration of Race from marriages of consanguinity,* I am not a little surprised to find the clans of the Gael brought forward as contrary evidence by Mr. S. Anderson Smith in your impression of February 23rd. Myself a Highlander, and knowing well the history, medical and otherwise, of Highlanders, I can bear testimony to their being no exception to the evil consequences arising from marriages of consanguinity.

Surely Mr. Smith is not acquainted with the practices, traditions, and popular belief of the Gael, and which they strengthen by corroborative evidence, that to produce the genus Homo in the highest state of perfection, you must marry into a distant and different clan. This maxim was most acted on by the Macraes of Kintail, who brought their wives from Glenmoriston. These produced giants of prowess in war, as shown by their deeds at the battle of Sheriffmuir and elsewhere, and also men of intellect, as Colonel Murchison, whose life Mr. Robert Chambers, of Edinburgh, is at present editing, and of whom he says, "he was by far the most noble and striking character of the period in which he lived." It was also customary to steal wives in the "Lochinvar" style, when the consent of the bride or her parents could not be obtained, from other clans. At the same time it is not to be conceived that a clan is or was a consanguineous community, being one only in name and idea; in blood they are as heterogeneous as any locality of the extent they occupy in England. Washing one's self in the Beauly, along with residence on the Lorat Estates, constituted a man a Fraser, independently of his previous clan or cognomen; so that the principle sought to be established, as to the consanguinity and intermarriage of blood relatives in clanship, is wanting, as a general rule.

The island of St. Kilda is the place where Mr. Smith's idea is realized, so far as intermarriage of blood is concerned, the difficulty of access making this a matter of necessity rather than choice; and it is a notorious fact, that here the population is stationary, intelligence of a low order, and away, far away, from city life and the thousand noxious gases and foul air of the town, infant mortality is excessive.

In common with the aristocracy of England, the Highland chiefs, from the same causes, are becoming few. In Ross-shire, for instance, there is not a landed proprietor, with three exceptions, who, in the direct male line, can boast of a lineage as far back as the time of taking the Covenant; and whether Celtic or Teuton, from Maiden Kirk to John O'Groat's, the same is the case.

In reference to degeneration of race, three facts are known: 1st, It is favoured by consanguinity, as popularly believed and proved by yourself; 2nd, By town life, as noticed by Dr. Gregory in his "Conspectus;" and, 3rd, By genius, where progeny, generally speaking, is either wanting, or sadly at fault. These three states predispose to the production of unhealthy semen; and this I conceive to be the cause and origin of all the evil. This state of ill-health on the part of parties desiring to propagate the species, is not properly attended to, nor has the subject received that close and strict investigation which it deserves from medical men as a part of medical science. Magendie, in his "Physiology," says that seminal animalcula is not found in the secretion of the testicles before puberty, nor in mules which are barren, although they have a portion of semen. These animalcules only exist in individuals fit for procreation; gloomy affections, disease, and excess cause them to disappear. M. Bory Saint Vincent sought for them in vain in the semen of two young and vigorous subjects who had suffered a capital punishment. He found them, on the other hand, in soldiers killed instantly by a bullet. In animals they are only found during season.

Let me ask, Are not all these causes at work in the man of genius, from the effects of a highly intellectual state working on an over-active brain? Are not the aristocracy and the care-worn denizen of the city, anxious, eager, depressed, with soul and body intent on business, and breathing all day long pestilential exhalations, subject to them too? And how can the unhealthy semen of such produce healthy offspring? As to the offspring of blood relatives not exposed to these causes, may not that arise from the animalcules lying to a certain extent dormant in (so to speak) soil so much like their former habitat, and which does not stimulate them to vigorous action? Having given attention to this view of the subject for some time, I lay it before your readers to judge for themselves.

I am, Sir, your obedient servant,

Beauly, 1861. K. CORBET, M.D.

* THE LANCET, vol. ii., 1860, p. 619.

PARISIAN MEDICAL INTELLIGENCE.

(FROM OUR SPECIAL CORRESPONDENT.)

M. BEAU, in his last clinical lecture at the Charité, wound up the subject of phthisis by a long and critical enumeration of many of the various remedies which have from time to time been proposed either as infallible or palliative means for its treatment, and recounted to his audience the principal reasons which had induced him to attempt the employment of preparations of lead in the cure of tubercular pulmonary affections. "Phthisis," he said, "has been cured by all sorts of methods and in all sorts of ways; the fact being that, as this malady depends upon the reciprocal action of a diathesis and of globular anæmia, the remedy which is able to oppose the progress of the latter condition may not only prevent the disease from making further inroads on the system, but also contribute to the healing of such lesions as already exist. My intention is not certainly to enumerate all the means for treating consumption which have in turn been extolled and employed against this malady; you will find them detailed at length in the treatise of Baumés, of Montpellier, published in 1805. I shall limit myself to a few." After mentioning sea voyages, horse exercise, southern climates, emetics, chloride of sodium, asses' milk, Iceland moss, conserve of roses, quinine, fir-sprouts, watercress, sulphur, sulphureous

waters, cod-liver oil, iodine, turtle-soup, snail-broth, oysters, strawberries in great quantities, hydrotherapy, the hypophosphites, and steel, the lecturer at last arrived at his favourite remedy—lead. "The employment of lead," he said, "in the treatment of tubercular consumption is not new. The idea is a borrowed one. What is new is the manner in which I administer it, and in which I have understood its action. I must first tell you how I was in the onset induced to employ it. Starting from the theory, which I hold in common with many other observers, that the development of tubercle is favoured by the anæmic state, I had been struck by the fact that the workmen employed in establishments where lead is much handled, although anæmic and cachectic to the last degree, very rarely present symptoms of tubercular deposit in the lungs. During a period of six or seven years at the Hôpital Cochin, amongst the many patients whom I treated for lead poisoning, I never saw a single case of phthisis. Once only in the lungs of a house-painter I met with tubercle; but I subsequently ascertained that this man had never had any of the signs of the saturnine affection. I went a step further, and inquired into the diseases usually met with in the trades habitually working with lead, and found that cough amongst operatives of this class was of rare occurrence. I began then to think within myself that if lead could prevent, it might also very possibly cure, phthisis, and was much tempted to make the experiment, but waited for further evidence, and was presently emboldened by an accidental occurrence. Shortly after my entry into the service of the Charité, a man, affected with lead colic, fell under my observation. On examining his chest I found evident symptoms of tubercular deposit; and, on inquiry, ascertained that the patient had been consumptive for years. Finding himself without work, this man had taken a job at the lead works at Clichy, and there had caught his colic. He assured me that since his seizure both cough and expectoration had diminished; in fact, so much so as to have made him think it useless to direct my attention to the state of his lungs. He left the hospital some time afterwards, cured of his colic, and with considerable improvement of the pulmonary symptoms. In the case of a second patient, who shortly afterwards entered my wards, I was informed that the signs of consumption, held in abeyance during repeated attacks of lead colic, had reappeared each time that the latter malady had been removed. I endeavoured, on the verification of this fact in my hospital service, to reproduce the saturnine saturation when the phthisis seemed inclined to gain ground, and succeeded beyond my expectations in arresting its progress on several occasions. Such were the incidents which led me to the adoption of my present method of treatment, and *the results I have obtained are not of a nature to justify me in laying the method aside.* The following is the manner in which I employ this drug:—I begin by administering an emetic, in order to rouse the stomach from the state of torpor which it is so common to meet with, either as cause or effect, in tubercular phthisis. After the lapse of a week or thereabouts, I commence the lead (I prefer the carbonate, as being better borne by the stomach than the acetate), in pills of two grains each. The dose is taken at first once a day, then twice, and so on, until six pills, or twelve grains of the lead, are swallowed within the course of the twenty-four hours; the best time for administration being before each repast, as the drug is at that moment less likely to cause vomiting. This treatment must be continued until a sufficient saturnine impregnation has taken place, a generous diet being allowed to the patient at the same time."

M. Broca, at the hospital of Bicêtre, has lately observed a curious case, details of which were presented to the Society of Surgery at its last meeting, in which gangrene of the foot, occurring in a paralytic patient aged sixty-one, was found to coincide with the obliteration of the abdominal aorta by a clot detached most probably some time previously from the internal surface of the heart. M. Broca himself has been kind enough to supply me with some further details concerning this case, which will certainly not be without interest to your readers. The autopsy revealed the fact that the obturation of the main trunk had been complete, and that the collateral circulation had been chiefly kept up by the anastomoses of the hypogastric with the inferior mesenteric arteries, and with the lumbar vessels through the agency of the hæmorrhoidal, lateral, sacral, and ileo-lumbar arteries, all of which channels were notably enlarged. In addition to the symptoms indicating aortic obliteration, such as the absence of femoral pulse, &c., M. Broca ascertained with the thermometer that the temperature of part of the limb (namely, the knee, back and front) on the side affected by gangrene, was perceptibly higher than that of the sound side; whilst the thermometer applied to the latter registered 33° (centigrade), on the affected side it marked 36·5°, making a difference of 3·5° in favour of the gangrenous limb. An examination of the temperature in each groin showed that no difference existed between either side in that region, but towards the ankles the warmth of the gangrenous part was ascertained to be slightly inferior to that of a similar spot on the other limb. The knowledge of this fact enabled M. Broca to state that an obliteration was occurring, either in the third portion of the femoral artery, or else in the popliteal trunk; a surmise the correctness of which was most fully confirmed at the post-mortem examination, when an extensive clot was found to occupy both these portions of the arterial channel suggested in the diagnosis.

The Siamese ambassadors, who until the arrival of the King of Sweden and Prince Oscar had been the lions of the hour, were conducted the other day by their *cicerone*—a French polyglot abbé, whose name I forget—to see the Hôpital Lariboisière, as being (which it certainly is) the best specimen of an hospital that modern civilization has hitherto achieved. The director of the Assistance Publique, the hospital superintendent, together with a posse of polite underlings, were under arms immediately, and the visit commenced by the introduction of their Siamese Excellencies into the very handsomely decorated pharmacy of the establishment. No sooner, however, had their Eastern nostrils scented the combined aromas of aloes, rhubarb, assafœtida, creosote, &c. &c., than, with nimble fingers applied to contracted noses, a general retreat was sounded, and first, second, and third ambassador of H.S.M. returned with the utmost precipitation into the open air, whence no coaxing could persuade the sensitive and nauseated envoys to stir; and after a consultation with the polyglot abbé, with a deal of jargon and grimace, expressive of intense horror, the visit was voted a failure, and they departed; consequently the kingdom of Siam must for the present hobble on *minus* a Lariboisière.

A French military surgeon, M. Martenot, has recently proposed as a local anæsthetic agent, for rendering the skin and superficial tissues insensible to pain during operations, a preparation composed of camphor dissolved in chloroform (two-fifths by weight of camphor to three-fifths of chloroform). Such a solution applied by means of charpie for the space of twenty minutes to a part about to be operated on, will, he maintains, produce perfect anæsthesia.

At the last meeting of the Academy of Medicine M. Gobley was elected a member in the section of Pharmacy. The second candidate, M. Mialhe, a chemist of considerable merit, obtained twenty-seven votes; a majority of fourteen, however, in M. Gobley's favour decided the question against the former, whose turn will no doubt soon come round again.

At the Academy of Sciences last Monday M. Hervé Mangon communicated some very interesting investigations regarding the action exercised on vegetable life by the electric light. On the 30th ult., at eight A.M., he exposed four flower-pots, each containing four grains of rye, which had been sown on the consecutive dates of the 24th, 26th, 27th, and 28th, to the action of an electric flame produced by two pointed knobs of coal in connexion with an electro-magnetic machine moved by a steam-engine. The pots were placed a little below the level of the focal axis, without the interposition of any lens or glass, and at a distance of about a yard, the daylight being carefully excluded from the room where the experiments were conducted, and the process being continued for four consecutive days, and during eleven or twelve hours each day. The rye sown on the 24th and 26th, when examined after the first day, was found to have sprouted, and to have grown to the height of one-sixth and one-eighth of an inch each respectively. One of the little plants displayed a slight commencement of green at its summit; the others were all white. The seeds sown on the 27th and 28th had not yet sprouted. On the second day of the exposure—namely, on the 31st—by two P.M., the plants first examined had just doubled their original growth; they were green, and strongly bent to the light. The rye sown on the 27th had sprouted, and a little green was perceptible at the top of some of the plants. On the 1st of August all the plants were found to be thriving as well as if enjoying the solar influence,—the electric light being equal to the production of the green vegetable pigment, found not to be secreted when plants are grown in the dark.

M. Barreswil, the chemist, at the same meeting, announced the singular fact that mother-of-pearl and the principle lately extracted from guano by Unger, and called "guanine," are one and the same substance.

Paris, August 13th, 1861.

MEDICAL TRIALS.

HOME CIRCUIT.—CROYDON, AUG. 12.

(*Before* Mr. Justice WILLIAMS *and a Special Jury.*)

HUMPHREY *v.* STILLWELL

THIS was an action of slander.

Mr. Bovill, Q.C., and Mr. Garth were for the plaintiff; Mr. M. Chambers, Q.C., and Mr. Joseph Browne were counsel for the defendant.

This cause was commenced on Saturday last, and was adjourned until Monday. The plaintiff carries on the business of a butcher at Epsom, and the defendant is a medical gentleman living at the same place, in extensive private practice, and who, it appeared, was also medical officer to the Royal Medical Benevolent College at Epsom—an institution appropriated to the reception of the children of decayed members of the medical profession and others, and generally averaging 150 pupils. The plaintiff, it appeared, had obtained the contract to supply the College with meat, and the slander complained of consisted in a statement made by the defendant to Mr. Gibbs, the steward of the establishment, which was to the effect that the plaintiff supplied the establishment with exceedingly bad meat, and that he bought his legs of mutton by the yard, and was almost hooted from the market in consequence of the description of meat he was in the habit of purchasing. The steward, it appeared, expressed his opinion that the meat supplied by the plaintiff was exceedingly good, and the plaintiff himself was called as a witness, and he swore that there was no truth in the allegation that he had supplied bad meat to the College, and asserted that the whole of it was according to his contract. It should be explained that the plaintiff was not alleged to have made the statement complained of of his own knowledge, but he merely stated that the fact had been reported to him, and he therefore, having regard to his position in connexion with the establishment, felt it his duty to mention the matter in order that it might be investigated.

The defence set up to the action was that the statement complained of was a privileged communication, and the defendant in his evidence stated that he was informed by a gentleman named Steele, who was a former governor of the College, that he had heard that the meat supplied to the establishment was not according to the contract, the communication being made in the exact terms in which he afterwards stated them to the steward, and he felt it his duty to mention the subject in order that some change might be made if the complaint was well founded. He also said that he was the more induced to take this step from the fact that there had been a few cases of illness among the boys, which he could not account for otherwise than by the meat that had been supplied to them not being so good as it ought to have been; but he, at the same time, explained that he did not suggest that the meat was in itself bad or unwholesome, but that it was rough and coarse, and these boys, being delicate, were unable to eat it. Mr. Steele, the gentleman referred to, confirmed the statement made by the defendant.

Mr. CHAMBERS submitted to the Court, at the close of the case for the plaintiff, that there was no evidence to go to the jury, and that the defendant, in his position as medical officer of the establishment in question, was perfectly justified in bringing such a matter before the proper authorities of the institution.

Mr. Justice WILLIAMS said he was of opinion that the objection was a good one, but in order to obviate further expense he would take the opinion of the jury upon the question of malice, and he would also, if he should turn out to be wrong upon the point of privileged communication, ask them what amount of damages they considered the plaintiff, under the circumstances, was entitled to.

The jury, in the result, expressed their opinion that no malice had been established on the part of the defendant, and they assessed the damages to the plaintiff at 40*s*.

Mr. Justice WILLIAMS then said that he should give the defendant leave to move to enter a verdict in his favour, if the Court above should think that he was right in regarding the statement complained of as a privileged communication.

KEW GARDENS.—The flowers in the variegated beds on each side of the grand promenade, and those in the great parterre on the terrace, in front of the Palm House, are progressing towards their most splendid summer beauty and perfection.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on the 8th inst:—

Adams, Robert Seymour, Lymington, Hants.
Ballard, Charles, Maidstone.
Bennett, Hugh, Llanidloes, North Wales.
Brook, Charles, Lincoln.
Brown, Arthur Bowyer, Connaught-square.
Greaves, Charles Henry, Great Easton, Rockingham.
Green, Edward, Brixham.
Hawthorn, John, Newcastle.
Lawton, Samuel, Sheffield.
Martin, Henry Arthur, St. Austell, Cornwall.
Popplewell, Thomas William, Gainsborough.

The following gentlemen also on the same day passed their first examination:—

Adams, Webster, Ipswich.
Anderson, John, Manchester.
Dalgliesh, Jonathan, Newcastle-upon-Tyne.
Proctor, Peter, Leeds.

UNIVERSITY OF ABERDEEN.—At the late Graduation Term, the Very Rev. the Vice-Chancellor conferred the following degrees:—

M.D.:
John Gray (honourably distinguished)
Harvey Hall Adam.
Thomas Henry Meikle.
William Mortimer.
Alexander Ross Paterson.
Alexander Thomson.

M.B.:
Alexander Taylor (honourably distinguished).

M.C.:
Alexander Ross Paterson (honourably distinguished.)
Harvey Hall Adam.
William Mortimer.
Alexander Taylor.
Alexander Thomson.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen, having passed their Examinations for the diploma, were admitted Licentiates of the College at the recent sittings of the Examiners:—

Armstrong, William Crawford, Portsmouth.
Hamilton, Archibald, Edinburgh.
Kydd, David, Forfarshire.
Macaw, Kennedy, Co. Derry.
M'Cres, John, Co. Down.
M'Dougall, James Nairn, Ross-shire.
M'Nab, James, Ayr.
Porter, John Dunn, Tyrone.
Robson, William, Kirkcudbrightshire.
Rowan, James, Co. Down.
Ruggles, Eli Samuel, Connecticut.
Skae, Francis, Edinburgh.

MUNIFICENCE.—The will (bearing date Dec. 28th, 1860) of the late Mr. Robert Forest, of Montague-place, Clapham-road, has just been proved in the London Court, and exhibits feelings of philanthropy in the distribution of his property almost unexampled. The deceased directs that the whole of his property shall be set apart to accumulate until the decease of his widow, when the following medical institutions will benefit to the amounts respectively placed to each:—The Royal Medical Benevolent College, for exhibitions, £5000; King's College, London, for scholarships, £3000; Asylum for Idiots, £500; the Royal Free Hospital, Gray's-inn-road, £500; the Lying-in Hospital, £500; the Charing-cross Hospital, £500; the Brompton Consumption Hospital, £500; the Royal Orthopædic Hospital, £500; the London Fever Hospital, £500; the Middlesex Hospital, £500; the Westminster Hospital, £500; King's College Hospital, £500; the University College Hospital, £500; the Sea-Bathing Infirmary, £500; and equally large sums to other charities not medical. Mr. Forest died at the advanced age of seventy-nine.——His Grace the late Duke of Bedford has bequeathed £1000 to the Bedford General Infirmary.

OVARIOTOMY.—Dr. T. W. Hamilton mentions in the *American Journal of Medical Science* two cases of ovariotomy. In the first the tumour was removed and the patient recovered; in the second the operation was given up after the abdominal incision, from the numerous adhesions which were found. The lady died forty-two hours afterwards. Since 1854, twenty-four operations of this kind have been performed in Ohio; eleven successfully, and thirteen with a fatal result. Dr. Pope, at St. Louis, had two favourable issues in four cases; he is in the habit of dividing the peduncle with the écraseur.

THE VICTORIA CROSS has been conferred on Hospital-Apprentice Arthur Fitzgibbon, Indian Medical Establishment, for having behaved with great coolness and courage at the capture of the North Taku Fort, on the 21st August, 1860. On the morning of that day he accompanied a wing of the 67th Regiment when it took up a position within 500 yards of the fort. Having quitted cover, he proceeded, under a heavy fire, to attend to a dhoolie-bearer, whose wound he had been directed to bind up; and, while the regiment was advancing under the enemy's fire, he ran across the open to attend to another wounded man, in doing which he was himself severely wounded.

CAUSES OF DEATH.—To the Registrar-General's report is appended, as usual, an instructive paper by Dr. W. Farr on the causes of death in England. The year now reported on—1859—is the first in which diphtheria has obtained a distinct line in the tables; it had previously been confounded with cynanche, and when the two are put together the rapid progress of this great epidemic becomes evident: the deaths in 1855 were 335; in 1856, 603; in 1857, 1583; in 1858, 6606; in 1859, 10,184. Epidemics of diphtheria are clearly described in the seventeenth century by Italian and Spanish writers, and its frequent association with scarlatina justifies the inference that the diphtherine,—its *materies morbi*,—is some modification of scarlatinine. Of the whole deaths of the year one-fourth were referred to zymotic diseases. Small-pox destroyed 3848 persons, chiefly children who had not been vaccinated; an instance, as Dr. Farr remarks, of the rigour with which the infringement of sanitary laws is visited, for the children perish and the parents lose their offspring by the neglect of a precaution of the simplest kind. A fatal outbreak of erysipelas at the Winchester Infirmary was traced to a cesspool. Of the parasitic diseases it is remarked that the ova of worms must be derived generally from impure river waters, into which the refuse of towns is poured. We have but an imperfect conception of the number of deaths from excessive drinking; but 345 were directly ascribed to intemperance, and 545 to delirium tremens —890 in all from the two forms of alcoholism. Passing next to constitutional diseases,—another regiment of the enemies that dog our steps,—we find gout described as nearly stationary; it is considered that, thanks to the more intelligent system of dining which the wealthier classes, wearied of this racking disease, will probably introduce, we may hope to see gout rapidly decline. The deaths from tuberculous disease have decreased since 1853: those from bronchitis have increased very greatly of late years. Amongst local diseases we find affections of the three vital organs—the brain, the heart, and the lungs—causing nearly a third of all the deaths of the year. Fright was the cause of 7 deaths (not all children), grief of 8 (7 women), rage of 5 (4 infants), anxiety of 1 (a man), mental shock of 1 (a woman), melancholy of the deaths of 21 men and 26 women. Above 25,000, chiefly infants, died of convulsions—a striking and distressing symptom,—but probably only part of the disease, which is the result of organic lesions and local irritations that are never discovered. 27,104 deaths are referred to the decay of old age without any disease; "the weary wheel of life at length stood still." 14,649 persons were killed—a sad confession, says Dr. Farr, for a nation humane, civilized, and skilled in all the arts, to have to make. Annually 75 persons in 100,000 thus die a violent death. 13,056 of these deaths, in 1859, are ascribed to accident or negligence; amongst them were 279 by poison. 1248 deaths were declared by Coroners' juries to be suicides; 338 murder or manslaughter. 18 persons were killed by lightning, nearly all persons of out-door occupations—the house is safer than the field. It is hoped that the arrangement for paying Coroners by salary will bring better information on the subject of violent and sudden deaths, and throw new light on their causes.

THE SANITARY CONDITION OF THE THAMES. — Dr. Letheby reports as follows:—In the spring quarters of 1858 and 1859, when the river was so offensive, the average humidity of the air was only 68 and 69, and the mean temperature was 57·6° and 59·8°. During those quarters the warmth of the river and the evaporation from its surface were considerable; indeed in the month of June of 1858 the temperature of the water was 72·4°, and in the corresponding month of 1859 it was 67·2°. In the succeeding months it rapidly rose to the temperature of 75°, and then the putrefaction of the water was at its highest; but during the quarter which has just expired, as well as that of 1860, the temperature of the river has not exceeded 62°, and there have been but slight signs of putrefaction. The conditions, therefore, which seem to be necessary for a high state of decomposition in the river are, a continued absence of rain, a hot spring, and a dry condition of the atmosphere. The temperature of the water must be over 60°, the rainfall less than two inches in the month, and the humidity of the air below 80. With these conditions there is not only a diminished supply of fresh water from the upper tributaries of the river, but the volume of the stream is still further diminished by rapid evaporation from its surface. Under these circumstances the daily supply of sewage becomes concentrated, the downfall of the current arrested, and the oceanic water rises in the bed of the river to maintain its tidal level. Then it is that the mixture of sewage and sea-water putrefies and becomes a nuisance. This state of things may be predicated not only by the temperature and dryness of the air, but also by the chemical composition of the water; for when the proportion of saline matter, at high tide at London-bridge, amounts to more than 60 grains per gallon, there is imminent danger of the river becoming offensive. This is the result of almost weekly observations made over a period of four years; and, as those observations are likely to be of use in future inquiries into the state of the river, I have classified them in Tables VI., VII., VIII., and IX. of the Appendix. As far as I know, there have not been any similar consecutive examinations made, and therefore they may be of service when the question arises as to the influence of the new system of drainage on the state of the river. Last year, and up to the present month, the river has been in a normal condition; for its composition has not been very different from that recorded in the early analyses of Dr. Lambe and Dr. Bostock. In the course of the whole year, the proportion of saline matter dissolved in the river-water at high tide at London-bridge has amounted to only 28·9 grains per gallon, and the organic matter to 3·3 grains. The range has been from 19·6 to 57·3, and the organic matter from 2·6 to 5·5. The chief constituents of the saline matter have been as follows: Carbonate of lime, 12 grains; sulphate of lime, 4·5 grains; common salt, 10 grains; alkaline nitrates, about 2 grains; and ammonia in combination, 1·3 grains. The quantity of suspended matter in the water has averaged only 6·4 grains to the gallon. At times it has risen to from 12 to 15 grains; but this has happened during high winds, as at the time of the equinoxes, when the surface of the water has been ruffled and the mud upon the shore disturbed. The principal constituent of the suspended matter is ferruginous clay, and with this there is combined about one-fifth of its weight of organic impurity. It is remarkable that the river-water near to the shore is always a little less impure than that at mid-stream. This arises from the influx of fresh-water, and perhaps also from the purifying influence of the atmosphere on the thinner stratum of liquid, as well as from the circumstance that the main current of the rising tide is in the middle of the stream.

THE NEW SYDENHAM SOCIETY. — The third general meeting of this Society was held at Canterbury on the 23th ult. The report, which was of a highly satisfactory character, was received and adopted. A vote of thanks to the retiring Council was carried. Dr. Watson was elected president, Dr. Barlow treasurer, and Mr. Jonathan Hutchinson secretary. The gross receipts for the year were £4842 15*s.* 7*d.*; the expenditure less by £1255 12*s.* 8*d.*, which remains in the hands of the treasurer. The Society may be fairly congratulated upon its prosperous condition—a condition which contrasts favourably with that of the old Society, which was carried on in a spirit of cliquism and favouritism which could not but be disastrous to any institution. Let the new Society continue in the course which it has commenced, taking warning from the errors of its predecessor, and it cannot fail to pursue a prosperous and useful career. But we may suggest that punctuality in all its engagements is essential to its success.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—On Monday, the 5th instant, the usual quarterly meeting of the committee of this branch of the above Society was held in the Library-room of the Belfast Medical Society, Great Frederick-street—Dr. Patterson in the chair. Report was made to the meeting that at the late annual distribution of the funds of the parent Society in Dublin, the several parties recommended by this branch—four in number—for assistance were accorded relief in various amounts, and for which each was very grateful and thankful. Dr. Stewart brought under the notice of the meeting a communication signed by Dr. Wharton, the secretary, and Dr. Walsh, the treasurer, of the Central Committee in Dublin, respecting the much-lamented death, recently, of Dr. Kingsley, of Roscrea, the founder of the Society, which stated that that committee, feeling that the benefits conferred by the deceased on his medical brethren, if not on society at large, by originating the

Society, imperatively called for some lasting memorial of respect and gratitude, had undertaken to collect subscriptions, which it was proposed, in order that every member might contribute without inconvenience to himself, should be five shillings; but that, as it would doubtless gratify many persons to give more liberally, larger sums would be thankfully received. The meeting warmly responded to this appeal, unanimously resolving that the contemplated testimonial (the precise nature of which had not yet been decided on, as much would depend on the amount received) was eminently deserved, and earnestly recommending the profession in this district to come forward in its support. The Chairman, Dr. Browne, R.N.; Dr. James Moore, Dr. J. F. Dickson, Dr. Murney, Professor Ferguson, Dr. Taggart, Antrim; Dr. Spearing, Antrim; and Dr. Stewart, now handed in their subscriptions to the testimonial in question; and, some further business having been disposed of, the meeting separated.

FLINT IMPLEMENTS FROM THE DRIFT.—In the northern transept of the Crystal Palace four cases have been arranged by Dr. Price (who has charge of the Technological department) for the purpose of exhibiting a collection of flint implements and other objects of early art obtained from the drift. The number of interesting specimens here brought together, through the courtesy of various persons well known for their scientific attainments, forms an almost unique collection. In one of the cases are several flint objects recently presented by M. Boucher de Perthes, of Abbeville, in France, who was the first to direct attention to the occurrence of artificially shaped flints in deposits containing the bones of the mammoth and other extinct animals. In the same case are two volumes of memoirs by the same gentleman, entitled "Antiquités Celtiques Antediluviennes," 1849 and 1857, also liberally presented by him. In another case are specimens of the manufacture of gun flints, to show the plan of artificial flaking, for the purpose of comparison with the ancient flint implements; whilst above the cases is suspended a large map of England and part of France, with the most recent tertiary deposits coloured, and the situations marked whence the various specimens were obtained.

SLOUGHING OF THE TESTICLE IN STRANGULATED INGUINAL HERNIA.—M. Malgaigne maintains that the constriction in cases of strangulated inguinal hernia is not exerted by the ring, because such constriction would necessarily produce pressure of the cord and sloughing of the testicle. The unsoundness of this opinion was lately proved by a case brought forward by M. Richet, in which, under the circumstances just mentioned, the testicle *did* slough. This single case, however, would not be conclusive had we not other reasons for supposing that the strangulation really takes place at the ring.

IMPROVEMENTS AT ST. BARTHOLOMEW'S HOSPITAL.—Extensive improvements are now being made by Messrs. Cubitt and Co., of Gray's-inn-road, at the above hospital. For some years past the attention of the governors of the institution has been called to the very inadequate accommodation provided for the surgery department, and also to the fact that the distance from the surgery at which the medical gentlemen were compelled to reside, although within the walls of the extensive establishment, operated injuriously towards patients who had sustained injuries through accident. The governors, therefore, decided to purchase the house lately in the occupation of Mr. Williams, clothier, situate at the north-western corner of Duke-street, Smithfield, by the acquisition of which site this evidently important result would be achieved.

POLYPI OF THE RECTUM.—M. Richet mentioned, at a meeting of the Surgical Society of Paris, two cases of polypi recti, in one of which he had found no less than seventy polypi, varying in size from that of millet seed to the volume of a currant. They were examined under the microscope by M. Robin, and pronounced to be hypertrophied mucous follicles. M. Richet crushed these growths (it is not said in what manner); but the bleeding reappeared a few months afterwards. The surgeon then introduced a many-valved speculum into the rectum; and, having successively laid bare the polypi, tore them with forceps, removed what he could, and canterized the region where the pedicles had been implanted with a stylet calefied to white heat. The cure seems to be complete, though the patient still passes now and then a little blood. The second case presented the same symptoms in a lesser degree, nor was the blood lost considerable. The patient did not submit to an operation.

MEDICAL SCHOOL FOR VICTORIA.—An attempt is being made to establish a medical school at Melbourne.

HERNIA OF THE STOMACH.—M. Morel Lavellée, mentioned, on the 10th ult., a case of this kind at the meeting of the Surgical Society of Paris. The patient is seventy-seven years old, and was admitted into the Necker Hospital on April 16th last. He stated that, seventeen years ago, the tumour presented suddenly, without any known cause, and was at once of the size observed at the examination. This tumour, on admission, occupied the space between the umbilicus and the false ribs, stretching rather obliquely from the epigastrium to the left side, and was of the size of a large melon. Coughing and gurgling left no doubt as to its being a portion of the intestinal canal. When liquids were swallowed, the tumour became larger, and the injection of Seltzer-water yielded to the ear the sound of gaseous evolution, by which the tumour became inflated. When the latter was reduced, a hole was felt two fingers' breadth from the ensiform cartilage, into which aperture the extremity of the hand, made into a cone, could easily enter. The internal aspect of the ensiform cartilage and the aorta were, without effort, reached by the hand, and no doubt existed as to the herniated mass being formed of the stomach itself.

PARALYSIS AFTER DIPHTHERIA.—M. Tomaselli has just published, in the *Etneo*, a journal of Catania, in Sicily, two cases of diphtheria, in one of which paralysis of the lower limbs, the bladder, and the rectum was observed. Severe lumbar pain of a nervous character had also occurred. M. Tomaselli considers the paralysis of different sets of muscles, frequently following diphtheria, as depending on a poisoned state of the blood.

STRANGULATED UMBILICAL HERNIA.—M. Goyrand (of Aix, France) has just laid before the Surgical Society of Paris three cases of strangulated umbilical hernia in which the operation was successfully performed. The peculiarity of these cases is that the radical cure was obtained after all the three operations.

ON DIGITALINE.—M. Homolle, whose name with that of M. Quevenne is intimately connected with digitaline, has presented a paper to the Medical Society of the Paris Hospitals, wherein he gives an account of very interesting experiments on the value of the alkaloid just named. He wished to ascertain whether digitalis contained another principle besides digitaline which might possess the same properties. To arrive at a satisfactory solution, the author first prepared, with alcohol at 18°, an extract which differed from simple digitalis by the mere absence of chlorophyll. This extract (forty-five grains of which answer to about three drachms of powdered digitalis) was afterwards treated by alcohol at 40°, then by ether, and lastly by chloroform. Thus products were obtained classed respectively under Nos. 1, 2, 3, and 4. No. 1 is an extractive mass deprived of the greater portion of the bitter principle; No. 2 the acrid nauseous matter separated by ether; No. 3 the bitter principle highly concentrated; and No. 4 almost pure digitaline. M. Homolle experimented upon himself, and such violent vomiting and fearful head symptoms were produced by No. 2 that the author well nigh paid his devotion to science with his life. No. 4 (digitaline) was proved to possess alone the power of lowering the pulse and increasing the quantity of urine. M. Léger, Physician to the Bicêtre Hospital, who wrote an elaborate report on these experiments, tried some of the products (except No. 2, which had proved so severe) upon hospital patients, and verified the conclusions arrived at by M. Homolle, who certainly deserves every praise for his fearless and persevering efforts in the pursuit of pharmaceutical investigations.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, AUGUST 10TH.—It is satisfactory to find there has been a decrease in the mortality of the metropolis. In the third week of July the deaths were 1171; in the two following they rose to 1207 and 1225 respectively; last week they again declined to 1172. Diarrhœa was fatal in the week in 177 cases, of which 161 occurred to children, chiefly infants. Cholera or choleraic diarrhœa was also fatal in 13 cases, 6 of which occurred to children less than three years of age. Typhus exhibits an increase, for the deaths referred to it, which hardly exceeded 20 in the two previous weeks, rose to 43. Two widows are returned as having died at the ages of 96 and 98 years respectively. The husband of the elder of the two women, who was a coalwhipper at Bluegate-fields, St. George's-in-the-East, died twelve days before his wife, at the age of 91 years.

The births registered in London were—boys, 831; girls, 878.

MEDICAL VACANCIES.

It has been determined to establish a Lectureship in Dental Surgery and Mechanics at the Liverpool Royal Infirmary School of Medicine, and the first appointment of Lecturer is now open.

There is a vacancy for an Assistant-Physician to the City of London Hospital for Diseases of the Chest.

A Resident Medical Officer is required for the Brixton, Streatham-hill, and Herne-hill Dispensary.

The election of a Matron to the Sheffield General Infirmary will take place on the 2nd of September next.

MEDICAL APPOINTMENTS.

MR. JOSEPH LISTER, Professor of Surgery in the College of the University of Glasgow, has been elected to the vacant Surgeonship in the College.

Dr. Edward Lynes has been elected Surgeon to Bond's and Ford's Hospital, Coventry.

Dr. Charles Edward V. Goate, has been appointed Medical Officer for District No. 2 of the Coventry Union, in the room of Mr. F. W. Barton, deceased.

Mr. Robert Haldane Paterson has been appointed Medical Officer for the Broughton District, in the Glandford-Brigg Union, Lincolnshire, in the room of Mr. Henry Marston, deceased.

Dr. William Moore, M.R.I.A., has been elected Physician to Mercer's Hospital, Dublin.

Dr. Charles Holmes has been elected Governor, and Mr. Jerome O'Flaherty, Deputy-Governor, of the Apothecaries' Hall of Ireland.

Dr. Rawdon Macnamara has been elected one of the Surgeons to the Meath Hospital and County Dublin Infirmary, in the room of Mr. Francis Rynd, deceased.

Mr. John Morgan has been elected Professor of Practical and Descriptive Anatomy in the Royal College of Surgeons, Ireland, vacant by the appointment of Dr. Power to the Chair of Surgery.

Dr. K. M'Leod has been appointed Assistant-Surgeon of the Durham County Asylum, at Sedgefield, Ferry-hill, Durham, vice Dr. W. Connon, deceased.

Mr. Frederick Henry Bate has been appointed Poor-law Medical Officer for District No. 3 of the Ware Union, Herts, vacant by the resignation of Mr. Wm. John Bowden.

Mr. Wm Morris, of Petworth, has been appointed Medical Officer for the 4th, or Lodsworth, District of the Midhurst Union, Sussex, in succession to Dr. Turner, of the same place, whose term of office had expired.

Mr. Charles Bromley has been elected Dentist to the Royal South Hants Infirmary at Southampton.

Mr. John Brock has been appointed Dentist to the Westminster General Dispensary, Gerrard-street, Soho.

MILITARY AND NAVAL MEDICAL INTELLIGENCE.

Commissions signed by Lords-Lieutenant.—3rd Lincolnshire Rifle Volunteers: J. F. Eaton, Gent., to be Assist.-Surg., vice Hewitt, resigned. 13th Forfarshire Rifle Volunteer Corps: E. Thomson, M.D., to be Hon. Assist.-Surg. 50th Aberdeenshire Rifle Volunteer Corps: N. Lawrence, to be Hon. Assist.-Surg. Warwickshire Rifle Volunteers, 1st Administrative Battalion: C. W. Marriott, Gent., to be Assist.-Surg. 4th (Warwick and Leamington) Corps: Her Majesty has been pleased to accept the resignation of the Commission held by Hon. Assist.-Surg. C. W. Marriott. 1st Hampshire Rifle Volunteer Corps: W. T. Fernie, Gent., to be Assist.-Surg. 1st Middlesex Artillery Volunteer Corps: Bartholomew Archdekin Duncan, M.D., and Thos. Carr Jackson, to be Hon. Assist.-Surgs. 1st Dumbartonshire Administrative Batt. of Rifle Volunteers: Hon. Assist.-Surg. Alex. Angus Macdowal, M.D., to be Surg. 6th Lancashire Artillery Volunteer Corps: Henry Hulme, Gent., to be Assist.-Surg.

Surg. James Holt, to the *Simoon*. Assist.-Surg. Miles M. Magrath, to the *Wellesley*, for Melville Hospital. Assist.-Surg. G. W. Locke, to the *Aboukir*. Assist.-Surg. Dr. Robert Graham, to Greenwich Hospital. Acting Assist.-Surg. Robt. E. Fisher, to the *Antelope*.

Births, Marriages, and Deaths.

BIRTHS.

On the 4th ult., at Belgaum, East Indies, the wife of Robert Browne, Esq., Surgeon of H.M.'s 83rd Regiment, of a son.

On the 6th inst., at Robert-street, Hampstead-road, the wife of J. C. Day, Esq., M.R.C.S., of a daughter.

On the 7th inst., at Blackheath-park, Kent, the wife of Charles Frederick Ogilvie, M.D., Bombay Army, of a daughter, prematurely.

On the 7th inst., the wife of Alfred Brosten, M.D., of Brynmawn, Breconshire, of a daughter.

On the 11th inst., at Finsbury-place, the wife of Thomas B. Crosby, Esq., F.R.C.S., of a son.

On the 11th inst., at King's-buildings, Chester, the wife of Wm. M. Doble, M.D., of a son.

On the 12th inst., at Snaith, near Selby, the wife of Thomas Perkins, Esq., M.R.C.S., of a son.

MARRIAGES.

On the 3rd ult., at Mehidpore, Heaton Lloyd Williams, M.D., Civil Surgeon, Mundlaisur, to Georgiana Caroline, second daughter of Major Barrow, commanding H.M.'s 19th Regiment N.I.

On the 31st ult., at the Manse of Liberton, Dr. C. Mackinnon, C.B., Inspector-General of Hospitals, H.M.'s Indian Army, to Mary S. M. Beatson, daughter of the late Captain H. D. Beatson, Campbelltown.

On the 31st ult., at the Parish Church, Belfast, the Rev. Richard Irvine, A.B., of Glenavy, to Fanny, eldest daughter of Robert Stewart, M.D., Resident Physician of the Belfast District Hospital for the Insane.

On the 6th inst., at St. Paul's Chapel, York-place, Edinburgh, Cecil William Hastings, M.B. Oxon., of Hertford-street, May-fair, to Jemima, younger daughter of the late James Thomas Murray, Esq., of Queen-street, Edinburgh.

On the 6th inst., at St. Stephen's Church, Shepherd's-bush, Samuel Noble Bruce, Esq., M.R.C.S., of Clifton-villas, Maida-hill, to Mary, eldest daughter of L. W. Lloyd, Esq., of Shepherd's-bush; also Edward Seabrook, M.D., of Brompton, Kent, to Helen, younger sister of the former bride.

On the 8th inst., at Valleyfield, Penniculck, near Edinburgh, Hugh F. C. Cleghorn, M.D., Conservator of Forests, Madras Presidency, to Mabel, daughter of Chas. Cowan, Esq., of Loganhouse.

On the 8th inst., at St. Peter's, Cheltenham, John Braithwaite Hardy, Esq., Captain Royal Bombay Artillery, son of the late Col. Edmund Hardy, of the same regiment, to Fanny Desbrosses, only child of Francis Cook, M.D., of Suffolk-lawn, Cheltenham.

On the 8th inst., at Lewisham Church, Kent, Francis Harris, M.D., of Cavendish-square, to Marianna, only daughter of the late Chas. Harris, Esq., of Fulford Grange, in Yorkshire.

DEATHS.

On the 9th inst., at Shaftesbury House, Bayswater, the residence of Thomas Davidson, M.D. Oxon., Spencer Meredith, Esq., Assistant-Surgeon H.M.'s Madras Army, and younger son of E. T. Meredith, Esq., of Bath, aged 27.

On the 9th inst., at Surbiton, Surrey, Mary, relict of Robert M'Cormick, Surgeon R.N, aged 84.

On the 9th inst., at Shirley Lodge, near Southampton, Mary Anne, the wife of C. W. Wheeler, M.D.

On the 10th inst., at Boulogne, Elizabeth, widow of the late Dr. Edw. Hogg, formerly of Hendon.

On the 12th inst., at Campden-grove, Kensington, Thomas Wheelwright, M.D., aged 76.

BOOKS ETC. RECEIVED.

Dr. Arnott's Survey of Human Progress.
Mr. Hughes on Colliery Explosions.
Mr. Browne on Cottage Asylums.
Dr. M'Nicoll's Handbook for Southport.
Mr. Browne on Clinical Teaching of Psychology.
Crystals from Cloud-Land.
Prof. Heiberg on Subcutaneous Incision of the Ciliary Muscle.
Prof. Heiberg on Tetanus.
Sowerby's Useful Plants of Great Britain.
Mr. Hogg's Elements of Natural Philosophy.
Dr. Taylor on the Climate of Pau.
Mr. Chavasse's Advice to a Mother.
Dublin Quarterly Journal of Medical Science.
American Medical Times.
Medical and Surgical Reporter.
Edinburgh Veterinary Review.

Medical Diary of the Week.

MONDAY, AUG. 19	ROYAL FREE HOSPITAL.—Operations, 2 P.M. METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
TUESDAY, AUG. 20	GUY'S HOSPITAL.—Operations, 1½ P.M. WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEDNESDAY, AUG. 21	MIDDLESEX HOSPITAL.—Operations, 1 P.M. ST. MARY'S HOSPITAL.—Operations, 1 P.M. UNIVERSITY COLLEGE HOSPITAL. — Operations 2 P.M. ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 3 P.M.
THURSDAY, AUG. 22	ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M. LONDON HOSPITAL.—Operations, 1½ P.M. GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M. LONDON SURGICAL HOME.—Operations, 2 P.M.
FRIDAY, AUG. 23	WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
SATURDAY, AUG. 24	ST. THOMAS'S HOSPITAL.—Operations, 1 P.M. ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M. KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M. CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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THE LANCET *may be obtained from every respectable Bookseller or Newsman in the World.*

To Correspondents.

TREASONABLE CONSULTATIONS WITH HOMŒOPATHS.

An Old Subscriber.—Our correspondent has known us long enough to be assured that an offence against professional honour cannot in this journal be mitigated by the elevated position of the offender. Our opinions concerning homœopathy, and the treacherous and degrading conduct of those medical practitioners who stoop to consult with homœopaths, have been often expressed, and, we venture to believe, expressed with more effect than those of certain effervescent writers who have recently been attempting to make a little capital out of this topic. Our opinions remain unchanged; nor can they be modified on account of the inconvenience of the application of them. The lash aimed at an abstract treason is still swinging in the air; whosoever chooses to embody that treason must be content to fall under the infliction. In the absence of distinct evidence, we cannot pronounce—as others have hastily done—that this or that eminent person has brought himself within the range of condemnation. At present we witness a little storm of personal accusations and denials raised for the purpose of imposing the delusion upon its proprietors that a certain clique-organ is at last doing some service in justification of the £2000 power wasted in grinding it. This is of small consequence. Upon the general question that it is treasonable to lend countenance to homœopaths by meeting them in consultation, the entire profession is agreed. The particular question whether any individual has been guilty of that treason is a matter of evidence.

An Indian Medical Officer.—The treatment of dysentery by large doses of ipecacuanha is not of recent date. Piso and Helvetius both used it extensively as the "radix anti-dysenterica." About the year 1804 mercurials began to be employed in the treatment of dysentery, calomel and opium gradually taking the place of ipecacuanha, which fell into disuse. Efforts were unsuccessfully made to revive its original use until 1858, when Mr. Docker, of her Majesty's 7th Fusiliers, published in this journal the results of his experience of dysentery and its treatment in the Mauritius.

A Manufacturer.—The introduction of gutta-percha is attributed to a physician, Dr. Montgomery, whose attention was drawn to it whilst travelling amongst the Malays.

Dr. T. A. J. shall receive a private note.

A Statistical Enquirer may perhaps learn something for his purpose in Dr. J. O. M'William's Report on the Health of the Watergaurd and Waterside Officers of her Majesty's Customs, appended to the fifth General Parliamentary Report on the Customs, recently published.

J. J., (Rotherhithe.)—By the Thames Conservancy Act, sect. 112, persons can be prosecuted for allowing offensive matters, such as refuse from gas and chemical factories, to flow into the river. Several convictions for this offence have of late been obtained at the instance of the Conservators.

A Subscriber, (AYR.)—Is it possible that our correspondent can be a medical practitioner? We doubt it. If, however, he be so, we advise him to consult some member of the profession better informed than himself on the matter to which his letter refers. This, we believe, would not be difficult.

Chirurgus.—The letter will receive early attention.

One who is Ready, &c., (Croydon,) declares that he is ready to contribute towards the purchase of a large estate for the man who discovers an antidote for hydrophobia. Our correspondent is a gentleman of respectability, and his benevolent offer deserves to be mentioned.

If *A. Y. Z.* will send his name and address, he shall receive the information.

Mr. J. R. Lewis.—Everyone admits that the Medical Act is deficient in some of its most important clauses. The Medical Council are fully alive to these defects; but time is required to amend them. Nothing can be conceived more complicated or unsatisfactory than the position of duly qualified practitioners of the present day. We believe, however, that the public will eventually feel the necessity of some decided steps being taken. It is a mistake to suppose the question involved is merely a professional one, and it is clearly our duty as well as our policy to identify our interests with those of the community at large. It is to be hoped that in the next session of Parliament such alterations will be made in the Medical Act as will render it serviceable to society in general.

Mr. J. Montague Ellis, (Edinburgh.)—We do not prescribe in this place.

A CORRESPONDENT (Cheltenham), whose signature we are quite unable to decipher, is informed that Dr. Brady's address is No. 1, Warwick-terrace, Belgrave-road, Pimlico, and Ely, Cambridgeshire.

Mr. C. Bolton (Newcastle-on-Tyne) will oblige by sending the cases.

Truth.—Such a practice is highly objectionable; but a denunciation of it in general terms would be productive of no benefit. Let the offending individual be named, and proof advanced of his offence, and the fact shall be recorded in our pages.

Dr. Braxton Hicks.—The lecture was received.

Libertas.—1. Generally speaking, the candidate is required to possess the diploma of the College of Surgeons and the licence of the Society of Apothecaries.—2. The *law* does not require any such exclusive privilege.—3. A diploma from any recognised College of Surgeons, and a licence to practise medicine from any of the recognised bodies.

A Brother of the Scalpel.—We are not acquainted with any such institution.

A Governor of the Royal Medical Benevolent College.—A report of the trial will be found at page 172. Mr. Stillwell is a gentleman of the highest respectability and of the strictest honour and integrity. It was impossible for the jury to have given a verdict against him on the ground of malice. Those who know him are convinced that he is incapable of any such feeling. The question of law remains to be decided; but is not the finding of the jury virtually for the defendant? We think, under any circumstances, that Mr. Stillwell is entitled to the thanks and to the material support of his brethren in the performance of what he believed to be his imperative duty. Should it be necessary to appeal to the profession in his defence, we have no doubt of the result. After the evidence adduced, we find no fault with the plaintiff for the steps which he thought it necessary to take in vindication of his character. The real question at issue is, What is to be regarded as a "privileged communication" by a gentleman in the position of Mr. Stillwell? This is one of deep importance to the profession. It is evidently their province to watch anxiously and jealously the interests of those committed to their care. An error in judgment, admitting that an error has been committed, particularly if it be in the interests of humanity, is not dishonourable to him who commits it. It is therefore the bounden duty of his professional brethren to defend and support Mr. Stillwell.

Files.—At the Orthopædic Hospital, Oxford-street.

Ignoramus.—It is absurd to suppose that we have time or inclination to answer such questions. "Ignoramus" can find the information he requires in works on Physiology and Therapeutics.

J. S. H., (Halifax.)—The fee is the same for *all* candidates.

A Qualified Practitioner.—A practitioner would not, under the circumstances, be *compelled* to resign his appointment. The Poor-law Board have decided in this sense.

ECZEMA AURIUM.

To the Editor of THE LANCET.

SIR,—I beg to inform your correspondent, "Holmrook," that I have used the ordinary yellow wash with perfect success in several cases of "eczema aurium," one of which was very severe. The part to be bathed with the lotion three or four times a day, and great cleanliness observed.

Your obedient servant,

Burnhope, Stockton-on-Tees, Aug. 1861. W. E. CHAPMAN, L.R.C.P.E.

M.R.C.P.—The letter on the Norfolk Lunatic Asylum, in its present form, is libellous. The questions propounded by our correspondent are, no doubt, important; but it would not have been difficult to put them in such a manner that they might have been published with safety. We may state, however, that "M.R.C.P." affirms that the offered salary of £400 a year, considering the deductions to be made from it, is totally inadequate. He complains justly that the Visitors give preference to a single man to take charge of a large establishment, in which many of the patients are young women. He objects to the undue authority which is given to the lay superintendent, and he further inquires what were the causes of the suicide of the former superintendent, the late Mr. Casson.

G. and H.—We believe the claim could be resisted with success; but it is possible that some *legal* difficulty might present itself.

Alpha.—The death-rate of London during the decennial 1850-59 was 23 per 1000. During 1860 it was only 22.

Mr. J. Mitchell, House-Surgeon of the Lancaster Infirmary, offers the following curious suggestion as a check upon empiricism:—

"Suppose from this date the different Colleges in the United Kingdom were each to take a photograph of every member, licentiate, or graduate immediately after his examination, also adding day and date in large legible letters underneath the likeness, to be then hung up in a room set aside for the purpose in whatever College he may belong to; and should any dispute arise as to So-and-so being a member of So-and-so, a duplicate can at any time be taken from the original, and sent by post where required, and by that means, in my opinion, a check will be provided, perhaps greater than has yet been introduced for getting rid of this public nuisance."

Celsus.—1. He is fully qualified under the provisions of the Medical Act.—2. We do not recommend particular works.—3. He should not take a fee under such circumstances.—4. It is not illegal.

ERRATUM.—In THE LANCET for August 13th, p. 112, second column, line 4th, for "arsenite of potash," read "solution of the arsenite of potash."

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Elliott; Mr. H. Birt; Dr. W. E. Chapman; Dr. J. Lotsky; Messrs. Monckton and Ellis; Mr. Alfred Hill; Dr. Lockhart Robertson; Dr. Septimus Gibbon; Mr. Harry Lobb; Dr. Radford; Mr. J. E. Lewis, Durham; Mr. J. W. Kay; Mr. Stillwell; Mr. T. Jones, Ross; Mr. C. Day; Dr. Edwards, Cheltenham; Dr. Stewart; Mr. S. A. Parker; Dr. R. D. Thomson; Mr. J. Lidderdale; Mr. G. W. Hamblin, Neganee, U.S.; Dr. David Walker; Mr. J. M. Ellis; Mr. E. Stone, Thrapston, (with enclosure;) Mr. H. G. Philps, (with enclosure;) Mr. T. W. Bradley, (with enclosure;) Mr. J. D. Ward, York, (with enclosure;) Mr. F. Scaife, (with enclosure;) Mr. Freeman, (with enclosure;) Dr. Moore, Dublin; Mr. E. E. Williams, Bangor, (with enclosure;) Mr. R. Gorst, Prescot; Mr. R. Nichols, Uttoxeter, (with enclosure;) Mr. F. Collins, Lofthouse; Mr. E. J. C. Hillyard, Heckington; Mr. R. Heathcote, Manchester, (with enclosure;) Mr. Waller, (with enclosure;) Mr. W. Johnstone, Kirkcudbright; Dr. Harvey, Aberdeen, (with enclosure;) Dr. Beales, Congleton, (with enclosure;) Mr. F. de Chaumont, (with enclosure;) Dr. Dulvey, (with enclosure;) Celsus; A Surgeon, R.V.; A Physician; One who is Ready, &c., Croydon; Truth; Libertas; M.R.C.P.; A. Y. Z.; A Staff Surgeon; David Copperfield; Army Surgeon; A Qualified Practitioner; A Battalion Surgeon; G. and H.; A. B., Sheffield, (with enclosure;) E. W., Norwich, (with enclosure;) &c. &c.